85-482

Supreme Court, U.S.
FILED
SEP 21 1985
JOSEPH F. SPANIOL, JR.
CLERK

No.

IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1985

THE FIRESTONE TIRE & RUBBER COMPANY,
Petitioner,

v.

THELMA COUSINEAU, PERSONAL REPRESENTATIVE OF THE ESTATE OF MARK COUSINEAU,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE MICHIGAN COURT OF APPEALS

BUTZEL LONG GUST KLEIN & VAN ZILE
A Professional Corporation
By: Xhafer Orhan (Counsel of Record)
Daniel Patrick Malone
William J. Champion III
Carey A. DeWitt
1881 First National Building
Detroit, Michigan 48226
Telephone: (313) 963-8142
Counsel for Petitioner, The Firestone Tire & Rubber Company

Of Counsel:
John P. Palumbo
Assistant General Counsel
The Firestone Tire & Rubber Company

THE AMERICAN PRINTING COMPANY
1200 WEST FORT STREET, DETROIT, MICHIGAN 48226 — (313) 963-9310

174pp

QUESTION PRESENTED

May a State Constitutionally Impose Tort Liability on Members of an Industry for Their Joint Activity in Petitioning an Agency of the United States Government for Adoption of a Safety Standard?

TABLE OF CONTENTS

	Page
Question Presented	i
Table of Authorities	iv
Proceedings Below	1
Jurisdiction	2
Constitutional Provisions Involved	3
Statement Of The Case	3
Reasons For Granting The Writ	9
Petitioner's Participation In A Joint Campaign To Persuade OSHA To Adopt An Industry Safety Standard May Not Be The Basis Of A Tortious "Concert Of Action" Claim	9
A. Petitioner's Participation In A Joint Campaign To Persuade OSHA To Adopt An Industry Safety Standard Was Protected First Amendment Activity	11
B. The Decision Of The Michigan Court Of Appeals Constitutes A Clear Infringement Upon Petitioner's First Amendment Right To Petition	14
C. The Michigan Court's Distinction Between The Imposition Of Liability For First Amendment Activity Itself And A Finding That Such Activity May "Be Interpreted As A Cooperative Effort To Avoid Responsibility" For Risks Completely Ignores The Very Protected Nature Of Such A "Cooperative Effort."	18
D. The Michigan Court of Appeals's January 2, 1985 Amendments To Its August 9, 1984 Opinion Constitute An Impermissible Pretextual Afterthought	20

TABLE OF CONTENTS—(Cont'd)

Page

E. In Any Event, The Court of Appeals's Amendments Relating To Exchange of Chart Information As Concerted Activity Clearly Failed To Eliminate The Decision's Constitutional Infirmity Because The Record Is Totally Devoid Of Any Evidence That This Accident Involved A Mismatching Of More Than One Manufacturer's Components 27

Conclusion 29

TABLE OF AUTHORITIES

Cases Page

Abel v. *Eli Lilly & Co.*, 418 Mich. 311, 343 N.W.2d 164, *cert. denied*, 105 S. Ct. 123 (1984) 6, 15

Alma Society, Inc. v. *Mellon*, 601 F.2d 1225 (2d Cir.), *cert. denied*, 444 U.S. 995 (1979) 25

California Motor Transport Co. v. *Trucking Unlimited*, 404 U.S. 508 (1972) 12, 18

Cleveland Board of Education v. *LaFleur*, 414 U.S. 632 (1974) 25-26

Cousineau v. *Ford Motor Co.*, 140 Mich. App. 19, 363 N.W.2d 721 (1985) ..... *passim*

Cox Broadcasting Corp. v. *Cohn*, 420 U.S. 469 (1975) 11

Cruz v. *Beto*, 405 U.S. 319 (*per curiam*, 1972) 12

Eastern Railroad President's Conference v. *Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961) 6, 8, 12, 18, 20

Edwards v. *South Carolina*, 372 U.S. 229 (1963) 12

First Natl. Bank of Omaha v. *Marquette Natl. Bank of Minneapolis*, 482 F. Supp. 514, (D. Minn. 1979), *aff'd*, 636 F.2d 195 (8th Cir. 1980), *cert. denied*, 450 U.S. 1042 (1981) 13

Gay Student Services v. *Texas A&M University*, 737 F.2d 1317 (5th Cir.), *cert. denied and app. dismissed*, 105 S. Ct. 1860 (1985) 25

Greenwood Utilities v. *Mississippi Power Co.*, 751 F.2d 1484 (5th Cir. 1985) 26

Havoco of America Limited v. *Hollowbow*, 702 F.2d 643 (7th Cir. 1983) 12

Ottensmeyer v. *Chesapeake & Potomac Tel. Co.*, 756 F.2d 986 (4th Cir. 1985) 13

Pennwalt Corp. v. *Zenith Laboratories, Inc.*, 472 F. Supp. 413 (E.D. Mich. 1979), *appeal dismissed*, 615 F.2d 1362 (6th Cir. 1980) 13

Searle v. *Johnson*, 646 P.2d 682 (Utah 1982) 13

TABLE OF AUTHORITIES — Continued

Cases	Page
Sherrard v. *Hull*, 53 Md. App. 553, 456 A.2d 59, *aff'd*, 296 Md. 189, 460 A.2d 601 (1983)	13
Sierra Club v. *Butz*, 349 F. Supp. 934 (N.D. Cal. 1972)	13
Southland Corp. v. *Keating*, 465 U.S. 1 (1984)	11
State of Missouri v. *National Organization For Women, Inc.*, 467 F. Supp 289 (W.D. Mo. 1979), *aff'd*, 620 F.2d 1301 (8th Cir.), *cert. denied*, 449 U.S. 842 (1980)	12-13
Stern v. *United States Gypsum, Inc.*, 547 F.2d 1329 (7th Cir.), *cert. denied*, 434 U.S 975 (1977)	12
Thomas v. *Collins*, 323 U.S. 516 (1945)	11
United Mine Workers v. *Pennington*, 381 U.S. 657 (1965)	6, 8, 12
United Mine Workers of America, Dist. 12 v. *Illinois State Bar Assn.*, 389 U.S. 217 (1967)	11
United States v. *Cruikshank*, 92 U.S. 542 (1876)	12
Webb v. *Fury*, 282 S.E.2d 28 (W. Va. 1981)	13
Young v. *American Mini Theaters*, 427 U.S. 50 (1976)	25
United States Constitution:	
Amendment I	3
Amendment XIV	3
United States Statutes:	
28 U.S.C. § 1257(3)	2
Miscellaneous:	
45 Fed. Reg. No. 20 (January 29, 1980), pp. 6713-17 (effective April 28, 1980)	5, 16
49 Fed. Reg. No. 24 (February 3, 1984), p. 4341	5
Fischel, *Anti-trust Liability for Attempts to Influence Government Action: The Basis and Limits of the Noerr-Pennington Doctrine*, 45 U. Chi. L. Rev. 80 (1977)	13-14

No.

IN THE
SUPREME COURT OF THE UNITED STATES
OCTOBER TERM, 1985

THE FIRESTONE TIRE & RUBBER COMPANY,
Petitioner,

v.

THELMA COUSINEAU, PERSONAL REPRESENTATIVE OF THE ESTATE OF MARK COUSINEAU,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE MICHIGAN COURT OF APPEALS

THE FIRESTONE TIRE & RUBBER COMPANY, Petitioner herein, prays that a Writ of Certiorari issue to the Michigan Court of Appeals to review whether Petitioner's protected first amendment joint petitioning activity may constitute the basis of a "concert of action" tort claim.

PROCEEDINGS BELOW

Respondent commenced this action in the Circuit Court for the County of Wayne, Michigan on October 29, 1980. On December 10, 1982, the trial court entered an Order, attached as Appendix A, granting Petitioner's Motion for Summary Judgment. Plaintiff-Respondent appealed the trial court's decision of right to the Michigan Court of Appeals.

On August 9, 1984, the Michigan Court of Appeals, in an unpublished *per curiam* opinion (hereinafter "first Opinion"), attached as Appendix B, reversed the trial court's entry of summary judgment in favor of Petitioner and

remanded the case, solely on the issue of tortious concert of action, as to four defendants,[1] to the trial court.

On December 26, 1984, Petitioner applied to the Michigan Supreme Court for Leave to Appeal the decision of the Michigan Court of Appeals.[2]

On January 2, 1985, the Michigan Court of Appeals released to the parties an "Amended Opinion" (hereinafter "Amended Opinion"), attached as Appendix C, p. 17a, 140 Mich. App. 19, 363 N.W.2d 721 (1985). On January 22, 1985, Petitioner filed a Supplemental Brief to its December 26, 1984 Application for Leave to Appeal, addressing the issues raised by the Michigan Court of Appeals's "Amended Opinion."

On June 24, 1985, the Michigan Supreme Court issued an Order, attached as Appendix D, denying Petitioner's Application for Leave to Appeal the decision of the Michigan Court of Appeals.

JURISDICTION

The Michigan Supreme Court denied Petitioner's Application for Leave to Appeal the decision of the Michigan Court of Appeals on June 24, 1985. This Petition for Certiorari is thus being filed within 90 days after the Order of the Michigan Supreme Court denying Petitioner's Application for Leave to Appeal.

The jurisdiction of this Court is invoked under 28 U.S.C. § 1257(3).

---

[1] The Defendants in the action in the trial court had been Petitioner (Firestone), International Harvester Company, Goodyear Tire and Rubber Company, Kelsey Hayes Corporation, Budd Corporation, Fruehauf Corporation, and AMF, Inc. The Michigan Court of Appeals reversed only as to Firestone, Goodyear, Kelsey Hayes, and Budd.

[2] Petitioner (Firestone), Budd Corporation, and Goodyear applied to the Michigan Supreme Court for Leave to Appeal. All such applications were denied.

CONSTITUTIONAL PROVISIONS INVOLVED

United States Constitution, Amendment I:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

United States Constitution, Amendment XIV, Section 1:

> All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

STATEMENT OF THE CASE

This products liability, wrongful death action arose out of a tube-type truck tire and multi-piece truck wheel assembly[3] accident that occurred on May 8, 1979. Plaintiff-Respondent does not now have, and has never had, possession of the component parts of the tube-type tire and multi-

[3] The Court may find helpful a brief description of tube-type tire multi-piece truck wheels. The photographs attached as Appendix E, provided in lower court proceedings as, e.g., attachment C to Petitioner's Application for Leave to Appeal to the Michigan Supreme Court, depict a tube-type tire three-piece truck wheel in two stages of assembly: completely disassembled and completely assembled. Essentially, the wheel is designed as "multi-piece" because of the stiffness and construction of tube-type tires of the size here involved, i.e., the wheel must be made to come apart so that the tire can be mounted on it and the assembly can be used on a truck. As of the date of this Petition for Certiorari, Petitioner knows of no wheel manufacturer in the world that has invented a *single* piece wheel (such as is used for passenger car tires) upon which a tube-type truck tire of the size involved in this case can physically be mounted and operated on the type of truck involved.

(Footnote continued on next page)

piece wheel assembly involved in her decedent's accident, nor any other evidence from which the type of components or their manufacturer(s) could be ascertained. The wheel components were misplaced or destroyed after the accident. *See Cousineau* v. *Ford Motor Co.*, Appendix C, p. 17a, 140 Mich App. 19, 24, 363 N.W.2d 721, 725 (1985). Respondent concedes that no one will ever be able to identify the lost "accident wheel" assembly or the manufacturer(s) of its component parts. *Id.* at p. 19a, 140 Mich. App. at 25, 363 N.W.2d at 725.

Respondent's inability to identify the multi-piece wheel components involved in this case or their manufacturer(s) would have proved fatal to recovery under traditional products liability law. Thus, Respondent selected and sued some (but not all) manufacturers of multi-piece wheel components, including Petitioner, alleging, *inter alia*, a claim based upon Petitioner and its Co-Defendants' purported tortious "concerted" activity.

The only alleged "concerted activity" identified by Respondent took place during the period 1976 through 1980 and consisted of the activities of certain named wheel component manufacturers, including Petitioner, in petitioning a United States Government agency, the Occupational Safety and Health Administration, for the adoption of an OSHA

(Footnote continued from previous page)

A tube-type truck tire multi-piece wheel design employs a tongue and groove technology. In a three-piece wheel the tongue or "heel" of a "lock ring" (*see* Appendix E, Photograph B) is seated in a groove on the "rim base." Metal interference retains the "lock ring" and "side ring" (flange) in place when the force produced by inflation pressure in the tire tube clamps the components firmly together. The result is a metal-to-metal interference fit or geometric wedging of the components.

Once the decision to use a tube-type tire of the size involved is made by the truck manufacturer, the ultimate consumer, or the user of the truck, a multi-piece wheel is required. Because the tire cannot be cut in half and still hold the tube and restrain the enormous force generated at 80 pounds of inflation (force on the magnitude of 24,000 pounds and higher) the wheel, made of steel, must be capable of coming apart and being reassembled about the tire. The wheel assembly therefore necessarily consists of more than one piece or component. Thus, the tube-type tire "multi-piece wheel" was created.

work-place safety standard governing the servicing of multi-piece wheels. OSHA in fact adopted such a safety standard, effective April 28, 1980, for "servicing multi-piece wheels." *See* Appendix F,[4] p. 37a, 45 Fed. Reg. No. 20 (Jan. 29, 1980), pp. 6713-17 (eff. April 28, 1980).

Following extensive discovery, Petitioner and certain Co-Defendants, *see supra*, footnote 1, moved for entry of summary judgment in their favor pursuant to Michigan General Court Rule 1963, 117. On December 10, 1982, after first granting Respondent additional time to conduct discovery for the purpose of identification of the product(s) and its/their manufacturer(s) and obtaining the consensus of all parties, including Respondent, that such identification could never be made, the trial court granted Petitioner and its moving Co-Defendants' motions for summary judgment on Respondent's First and Second Amended Complaints, which had sought recovery on the basis of alternative liability and concerted action. *See* attached Appendix A.

Respondent filed Notice and Claim of Appeal with the Michigan Court of Appeals on January 28, 1983 and, on July 12, 1983, filed her Appeal Brief. Respondent argued that the trial court had improperly entered summary judgment.

Petitioner filed its Brief with the Michigan Court of Appeals on September 20, 1983, arguing that reversal of the trial court's entry of summary judgment for Petitioner would be improper. Among other arguments, Petitioner contended that its participation with other members of the industry in a campaign to persuade OSHA to adopt a safety standard for servicing multi-piece rims could not be considered tortious because the first amendment to the United States Constitution protected that activity. *See* Petitioner's Brief on

---

[4] The OSHA safety standard has been extremely effective in preventing accidents: "A review of the injury producing accidents investigated by OSHA since promulgating the multi-piece rim wheel servicing standard indicates that there has been a 70 to 80 percent reduction in multi-piece rim wheel servicing injuries." *See* Appendix G, 49 Fed. Reg. No. 24, Feb. 3, 1984, p. 4341.

Appeal to the Michigan Court of Appeals, pp. 25, 27-28. Specifically, Petitioner argued in its Brief that this Court's decisions in *Eastern Railroad President's Conference* v. *Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961), and *United Mine Workers* v. *Pennington*, 381 U.S. 657 (1965), recognized the protected nature of Petitioner's petitioning activity. Brief at pp. 27-28; *see also id.*, p. 25, footnote 7 ("If recognized, Plaintiff's allegations would amount to no more or less than imposition of liability for exercise of sacred first amendment rights of citizens, individually or collectively, to petition their government").

On August 9, 1984, the Michigan Court of Appeals, in an unpublished *per curiam* opinion (Appendix B), affirmed the trial court's entry of summary judgment in favor of those defendants that manufactured *vehicles* and Defendant AMF, Inc., one of the wheel manufacturer defendants. The court of appeals reversed, however, the trial court's entry of summary judgment in favor of the remaining wheel manufacturer Defendants, including Petitioner, insofar as Plaintiff-Respondent sought recovery on a "concert of action" theory. In doing so, the court relied heavily on the Michigan Supreme Court's decision in *Abel* v. *Eli Lilly & Co.*, 418 Mich. 311, 343 N.W.2d 164, *cert. denied*, 105 S. Ct. 123 (1984).

In reaching its decision, the court of appeals determined:

(1) Plaintiff had no idea who manufactured the accident wheel components at issue. *See* Appendix B, at 4a-5a;

(2) Plaintiff had no idea when the accident wheel components were manufactured. *See id.*;

(3) The multi-piece wheel components at issue did not disappear; nor were their sources rendered unidentifiable by Defendants' conduct. *Id.* at 9a;

(4) Unlike medication, which is irretrievable as evidence after use, the wheel components at issue were kept

for some time after the accident and could have been identified if available. *Id.*;

(5) Plaintiff had not joined all of the wheel component manufacturers who could have made one or more of the accident components. *Id.* at 5a;

(6) AMF was one of the major manufacturers of three-piece type rim components. *Id.*;

(7) Plaintiff made no claim and submitted no evidence to connect AMF [or any non-defendant manufacturer(s) of three-piece rim components] or the Defendant vehicle manufacturers to the OSHA petition campaign at issue. *Id.* at 7a;

(8) A petition campaign directed at the enactment of an OSHA work-place standard was engaged in by the remaining rim component manufacturer Defendants between 1976 and 1980. *Id.* at 6a;

(9) The joint petitioning activities of Defendants were not, in and of themselves, tortious, but instead were constitutionally protected activities. *Id.* at 13a; *see also Cousineau* v. *Ford Motor Co.*, Appendix C, p. 27a n.2, 140 Mich. App. at 34 n.2, 363 N.W.2d at 729 n.2;

(10) Concert of action cannot exist independently of an underlying tortious act. Appendix B at 15a.

Notwithstanding these determinations, the court of appeals held, *inter alia*, that Plaintiff-Respondent could proceed on a concerted action theory against the remaining wheel manufacturer Defendants. The court did so in the face of the following facts: (1) Plaintiff-Respondent was admittedly unable to prove *either* that she had sued the actual wrongdoer(s) or that the named Defendants had acted tortiously in concert with the actual wrongdoer(s); (2) the accident components could have been manufactured either by AMF, which the court of appeals expressly held did *not* act

in concert with the remaining Defendants, or by some unnamed wheel manufacturer that had not acted tortiously in concert with the remaining Defendants; (3) the alleged joint undertakings of Defendants were not tortious, but instead were constitutionally protected activities; and (4) Plaintiff-Respondent could not prove that the alleged tortious concerted activity by Defendants in any way proximately caused her decedent's injuries.

Petitioner and others filed timely Applications for Rehearing as to the Michigan Court of Appeals's decision on Respondent's concerted action claims. Petitioner argued once again in its Brief that it could not be found liable in tort for its protected first amendment petitioning activity. *See* Brief, pp. 20-21 and footnote 8. The Michigan Court of Appeals denied Petitioner's Application for Rehearing on November 29, 1984. *See* attached Appendix H.

On December 26, 1984, Petitioner filed with the Michigan Supreme Court an Application for Leave to Appeal the decision of the Michigan Court of Appeals as stated in the court of appeals's first Opinion of August 9, 1984 and the court of appeals's November 29, 1984 Order denying Application for Rehearing insofar as the decisions related to Plaintiff-Respondent's "concert of action" claim. Petitioner once again argued that its petitioning activity in concert with other industry members was protected under the first amendment as construed in this Court's decisions in *Noerr, supra*, and *Pennington, supra*. *See* Brief in Support of Application for Leave to Appeal, pp. 13-17. Petitioner concluded this argument by stating:

> As it presently stands, this Opinion violates the "*Noerr/Pennington* doctrine" enunciated by the United States Supreme Court because, other than a general reference to the "petition campaign", the only referenced concerted activity by Defendants was a 1976 meeting which itself concerned the organization of an OSHA petition campaign.

Id. at 17.

On January 2, 1985, the court of appeals entered, *sua sponte*, an Order (*see* Appendix I), indicating:

(1) The court intended to publish its August 9, 1984 opinion;

(2) The August 9, 1984 *per curiam* opinion would be published as authored by Judge Roman S. Gribbs; and

(3) Although the result of the opinion would remain the same, the opinion would be corrected for publication.

The court of appeals attached to this Order a new opinion labeled as the court's "Amended Opinion" (Appendix C). The January 2, 1985 "Amended Opinion" substantially modified the "concert of action" section of the Michigan Court of Appeals's first Opinion.

On January 22, 1985, Petitioner filed a Supplemental Brief with the Michigan Supreme Court in which Petitioner argued, *inter alia*, that the Michigan Court of Appeals's January 2, 1985 Amended Opinion, having been released after Petitioner's Application for Leave to Appeal to the Michigan Supreme Court, also acted to unconstitutionally infringe upon Petitioner's first amendment petitioning rights. *See* Supplemental Brief, p. 12.

On June 24, 1985, Petitioner's Application for Leave to Appeal to the Michigan Supreme Court was denied. *See* attached copy of Order (Appendix D).

REASONS FOR GRANTING THE WRIT

PETITIONER'S PARTICIPATION IN A JOINT CAMPAIGN TO PERSUADE OSHA TO ADOPT AN INDUSTRY SAFETY STANDARD MAY NOT BE THE BASIS OF A TORTIOUS "CONCERT OF ACTION" CLAIM.

The Michigan Court of Appeals found that Petitioner's protected petitioning activity could be the basis for imposition of liability on a "concert of action" tort claim. This

decision cannot be reconciled with the first and fourteenth amendments to the United States Constitution. In the balance of this Petition, Petitioner will articulate why this is so.

First, Petitioner will demonstrate that its activity in petitioning, along with other entities, the Occupational Safety and Health Administration of the United States Government was protected first amendment conduct.

Second, Petitioner will show that the Michigan Court of Appeals's conclusion that Respondent could base a claim of tortious concert of action on such activity constituted an infringement of Petitioner's constitutional rights.

Third, Petitioner will demonstrate that the court's attempt to resolve the constitutional issue by finding that Petitioner's protected first amendment activity could constitute a tortious "cooperative effort to avoid responsibility" only underscored the constitutional infirmity of the court's decision.

Fourth, Petitioner will show that the Michigan Court of Appeals's "amendments" to its first opinion—such amendments being made after Petitioner had applied for Leave to Appeal to the Michigan Supreme Court from the court of appeals's first Opinion—were merely a pretextual afterthought and in any event did not change the court's impermissible reliance upon Petitioner's protected conduct.

Finally, Petitioner will demonstrate that the purported alternative tortious concerted activity described by the court of appeals (i.e., exchange of information to compose matching charts), which was first identified as tortious conduct in the Amended Opinion, has absolutely no factual applicability to this action in any event.

Petitioner will show that the only conduct on which Respondent may purportedly base her tortious concert of action claim is protected first amendment conduct. Because this Court should not allow such a fundamental, glaring

error in the sensitive area of first amendment rights to go unreviewed,[5] this Court should grant The Firestone Tire & Rubber Company's Petition for Certiorari.

A. Petitioner's Participation In A Joint Campaign To Persuade OSHA To Adopt An Industry Safety Standard Was Protected First Amendment Activity.

The right to petition the government for redress of grievances is "among the most precious of the liberties safeguarded by the Bill of Rights." *United Mine Workers of America, District 12* v. *Illinois State Bar Association*, 389 U.S. 217, 222 (1967). Given the "preferred place" accorded in our system to petitioning rights, such rights having "a sanctity and a sanction not permitting dubious intrusions," this Court has long been vigilant with respect to possible violations of such rights. *Thomas* v. *Collins*, 323 U.S. 516, 530 (1945). Rightly so, of course, since "the right to petition

---

[5] Under this Court's decision in *Cox Broadcasting Corp.* v. *Cohn*, 420 U.S. 469 (1975), the decision of the Michigan Supreme Court denying Petitioner's Application for Leave to Appeal the decision of the Michigan Court of Appeals is a "final decision" as to the constitutional question presented herein. Under the *Cox Broadcasting* rule, "judgments of state courts that finally decide a federal issue are immediately appealable when 'the party seeking review here might prevail [in the state court] on the merits on nonfederal grounds, thus rendering unnecessary review of the federal issue by this Court, and where reversal of the state court on the federal issue would be preclusive of any further litigation on the relevant cause of action . . .'" *Southland Corp.* v. *Keating*, 465 U.S. 1, 104 S. Ct. 852, 856 (1984) (quoting *Cox*, *supra*). In such circumstances, the question is whether failure to provide immediate review "might seriously erode federal policy." *Id.* Here, a critical, never before resolved issue is presented to this Court in circumstances in which a state court has seen fit to countenance a violation of the first amendment right to petition. There is thus no doubt that failure to provide review now might seriously erode federal policy. Moreover, "[w]ithout immediate review," there may be no opportunity to pass on the federal issue and as a result "there would remain in effect the unreviewed decision of" the Michigan Court of Appeals approving of such a constitutional violation. *Id.* This *published* decision of the Michigan Court of Appeals, *see* 140 Mich. App. 19, 363 N.W.2d 721 (1985), if left uncorrected, could influence, aside from unknown and future cases, many current products liability actions in which this precise issue may well arise. Thus, immediate review is appropriate here.

is logically implicit in and fundamental to the very idea of a republican form of governance." *Stern* v. *United States Gypsum, Inc.*, 547 F.2d 1329, 1342 (7th Cir.) (*citing United States* v. *Cruikshank*, 92 U.S. 542, 552 (1876)), *cert. denied*, 434 U.S. 975 (1977).

It is also well established that a state entity may not deny a person the above described right to petition. *See* U.S. Const., Am. XIV, § 1; *Edwards* v. *South Carolina*, 372 U.S. 229 (1963); *Cruz* v. *Beto*, 405 U.S. 319, 321 (*per curiam*, 1972). Thus, if it is demonstrated here that Michigan courts have run afoul of the first amendment by denying Petitioner its right to petition, federal authority may act to protect the Petitioner.

Some of the most well known applications of the first amendment clause guaranteeing the right to petition have occurred in the antitrust context. The so called "*Noerr-Pennington*" first amendment petitioning doctrine, as outlined by this Court, shields from antitrust liability joint petitioning activity by businesses. *See Eastern Railroad President's Conference* v. *Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961); *United Mine Workers* v. *Pennington*, 381 U.S. 657 (1965). This doctrine clearly applies with respect to "all departments of the government," including, of course, the federal Occupational Safety and Health Administration. *See California Motor Transport Co.* v. *Trucking Unlimited*, 404 U.S. 508, 510 (1972).

Although this Court has never addressed the question, it seems clear that the first amendment rationale of the *Noerr-Pennington* doctrine, *see, e.g., Noerr*, 365 U.S. at 137; *California Transport*, 404 U.S. at 510, extends to non-antitrust contexts. Many lower courts have recognized that the doctrine stands generally for the proposition that genuine first amendment petitioning activity is immune from common law tort liability. *See, e.g., Havoco of America Limited* v. *Hollowbow*, 702 F.2d 643, 649 (7th Cir. 1983); *State of Missouri* v. *National Organization For Women, Inc.*, 467 F. Supp.

289, 305 (W.D. Mo. 1979), *aff'd*, 620 F.2d 1301 (8th Cir.), *cert. denied*, 449 U.S. 842 (1980); *First National Bank of Omaha* v. *Marquette National Bank of Minneapolis*, 482 F. Supp. 514, 524 (D. Minn. 1979), *aff'd*, 636 F.2d 195 (8th Cir. 1980), *cert. denied*, 450 U.S. 1042 (1981); *Pennwalt Corp.* v. *Zenith Laboratories, Inc.*, 472 F. Supp. 413, 424 (E.D. Mich. 1979), *appeal dismissed*, 615 F.2d 1362 (6th Cir. 1980); *Sherrard* v. *Hull*, 53 Md. App. 553, 456 A.2d 59, 65-66, *aff'd*, 296 Md. 189, 460 A.2d 601 (1983); *Sierra Club* v. *Butz*, 349 F. Supp. 934, 936 (N.D. Cal. 1972); *Webb* v. *Fury*, 282 S.E.2d 28, 37 (W. Va. 1981) (doctrine applies "regardless of the underlying cause of action appealed"); *Searle* v. *Johnson*, 646 P.2d 682, 689 (Utah 1982).

Clearly, the policies underlying the *Noerr-Pennington* doctrine support its application in the present circumstances. As the Fourth Circuit very recently noted,

> [t]he policies behind the *Noerr-Pennington* doctrine include preserving an individual's first amendment right to petition government officials and encouraging the free flow of ideas to political bodies in order to ensure intelligent decisionmaking.

Ottensmeyer v. *Chesapeake & Potomac Tel. Co.*, 756 F.2d 986, 996 (4th Cir. 1985).

The commentators are in accord with this view:

> A primary purpose of freedom of speech is to ensure that the electorate has the information necessary to properly discharge its self-governing responsibilities. *The right to petition the government is a necessary adjunct to freedom of speech under the first amendment qua guarantor of informed self-government* because most important public questions are resolved by representatives in government, not plebiscites. The *Noerr* doctrine preserves the rights of businessmen to press the government for resolution of certain legal, economic, and social problems. This advocacy properly includes presentation of facts and opinions.

* * *

> Of course, the right to petition does more than ensure that government officials are apprised of the opinions held and the facts known by the citizenry. It also promotes confidence that the government is accessible and answerable to the people. That the petitioning activity is of no value to the government does not mean that the petitioning is of no legitimate value to the petitioner and his co-citizens.

Fischel, *Anti-trust Liability for Attempts to Influence Government Action: The Basis and Limits of the Noerr-Pennington Doctrine*, 45 U. Chi. L. Rev. 80, 100-01 (1977) (emphasis added) (footnote omitted).

Here, just as in the antitrust context, there is a great value associated with petitioning activity: ensuring the proper, informed operation of representative government. As a result, the policy basis of the first amendment extends to the present case, and petitioning activity should be found by this Court to be protected from "concert of action" tort liability as well as antitrust liability. Because such activity is protected, any attempt to impose liability on Petitioner for participating in a joint compaign to persuade OSHA to adopt a safety standard violates the first amendment.

B. The Decision Of The Michigan Court Of Appeals Constitutes A Clear Infringement Upon Petitioner's First Amendment Right To Petition.

For the sole purpose of allowing this Court to evaluate the constitutional permissibility of the Michigan Court of Appeals's finding that Petitioner's protected activity could be the basis of a viable tort claim, Petitioner will briefly describe the essential characteristic of a "concert of action" tort claim in Michigan. For the purposes of this Petition, Petitioner concedes that the Michigan Court of Appeals has

stated accurately such characteristic in its January 2, 1985 Amended Opinion in this case:

> 'Even if defendant caused no harm himself, he is liable for the harm caused by his fellows because all *acted jointly*.' *Abel [v. Eli Lilly]*, 94 Mich. App. [59] at 73 [1979]. '[T]o state a cause of action, a plaintiff need only allege that the defendants were *jointly engaged* in tortious activity as a result of which the plaintiff was harmed.'

Cousineau v. *Ford Motor Co.*, *see* Appendix C, p. 25a, 140 Mich. App. 19, 32, 363 N.W.2d 721, 728 (1985) (emphasis added) (quoting *Abel* v. *Eli Lilly & Co.*, 418 Mich. 311, 338, 343 N.W.2d 164, 176, *cert. denied*, 105 S. Ct. 123 (1984)). The Michigan Court of Appeals thus emphasized that the *sine qua non* of a concert of action tort claim in Michigan is *joint* tortious activity on the part of the defendants:

> [Plaintiff] can prove tortious activity pursuant to a common design if she establishes that the wheel manufacturers *acting jointly* breached their duty to warn of the danger posed by their products. See *Smith* v *E.R. Squibb & Sons, Inc*, 405 Mich 79; 273 NW2d 476 (1979). She can also recover if she can prove that the wheel manufacturers, *acting jointly*, manufactured and/or marketed an unreasonably dangerous product. *See Owens* v *Allis-Chalmers Corp*, 414 Mich 413; 326 NW2d 372 (1982); *Moning* v *Alfono*, 400 Mich 425; 254 NW2d 759 (1977). A showing by plaintiff that there is some evidence supporting these claims would preclude summary judgment. *Rizzo*, *supra*.
>
> Plaintiff made a sufficient showing that defendant wheel manufacturers *acted jointly* in failing to warn of a danger in their products to survive their summary judgment motion.

Appendix C, pp. 26a-27a, 140 Mich. App. at 33, 363 N.W.2d at 729 (emphasis added).

The above quoted language makes it clear that without proof of *joint* tortious activity, a plaintiff absolutely cannot recover on a concert of action tort claim in Michigan. With this background, the crucial nature of Petitioner's participation in joint petitioning activity—in a campaign to persuade OSHA to adopt an industry safety standard on multi-piece rims—comes into focus. The Michigan Court of Appeals based its finding that the joint tortious activity required for a concert of action claim had potentially occurred in this case primarily, if not exclusively, on Petitioner's protected first amendment conduct.[6] Essentially, the court of appeals held that *because* Petitioner and its co-defendants had jointly and concertedly petitioned the United States Government, Plaintiff-Respondent had stated a claim of tortious concert of action. On this basis, the court of appeals reversed the trial court's grant of summary judgment to Petitioner.

The Amended Opinion of the Michigan Court of Appeals is replete with statements demonstrating its finding that Petitioner could be liable for tortious "concert of action" because of its protected activity. The court of appeals initiated its application of the law to Plaintiff-Respondent's theory that Petitioner had jointly, with its co-defendants,

---

[6] The Amended Opinion (*see* Appendix C, p. 17a) also refers to Defendants' exchange of information to compose "matching charts" as a factual basis for Plaintiff-Respondent's concert of action claim. As the name indicates, "matching charts" provide information to prevent the "mismatching" of various manufacturers' components (e.g., combining a Goodyear rim base with a Firestone side ring and a Budd lock ring, *see* Appendix E). OSHA requires the use of these charts. *See* Appendix F, pp. 43a-45a, 45 Fed. Reg. No. 20 (Jan. 29, 1980), pp. 6707-08. In this case, however, Respondent has admitted that she can never prove that such a "mismatching" occurred. Absent this factual predicate, Respondent can never prove that the exchanging of charts to avoid rim component mismatching could have been a proximate cause of Respondent's decedent's injuries. This critical oversight by the court of appeals in its Amended Opinion is discussed more fully in this Brief at Section E, *infra*, and results in Petitioner's OSHA petitioning activities being the *sole* alleged concerted activity upon which Respondent and the Michigan Court of Appeals might rely.

failed to warn about multi-piece rim danger with the following sweeping statement:

> *By engaging* in the joint OSHA petition campaign, the wheel manufacturers arguably proposed a government role to relieve themselves of their duty to warn those working with the multi-piece rims.

Appendix C, p. 27a, 140 Mich. App. at 34, 363 N.W.2d at 729 (emphasis added) (footnote omitted; *see* discussion *infra*, Section C, regarding footnote 2 of Amended Opinion). Thus, in the court of appeals's view, when Petitioner sought, with other defendants, to "propose" a government role in wheel safety, it was acting jointly, and, presumably, tortiously.

The court of appeals made this point clear with its treatment of Petitioner's co-defendant, AMF. As the record establishes, AMF was the *only* wheel manufacturer in the case that had *not* participated in the joint petitioning campaign to persuade OSHA to establish a rim service safety standard and was the only wheel manufacturer to be dismissed. *See* Appendix C, pp. 21a, 28a-29a, 140 Mich. App. at 27, 35, 363 N.W.2d at 726, 730. It is clear that *because* AMF had not participated in the joint OSHA campaign, the court of appeals did not consider that AMF had engaged in the requisite "joint action," *see supra*, essential for a concert of action tort claim:

> Although plaintiff made a sufficient showing to survive a motion for summary judgment on her concert of action claim against the wheel manufacturers, *she did not do so with respect to AMF. There was no indication that defendant AMF acted pursuant to a common design* of the other defendants prior to sale of its wheel manufacturing division in 1959. *Thus, the trial court was correct as to AMF* but erred in granting summary judgment pursuant to GCR 1963, 117.2(3) in favor of the other wheel manufacturers.

Appendix C, pp. 28a-29a, 140 Mich. App. at 35, 363 N.W.2d at 730 (emphasis added). On the other hand, according to the court of appeals, because Petitioner and the remaining wheel manufacturer co-defendants *had* petitioned the United States Government for redress, they *were* subject to liability as joint tortfeasors.

The Michigan Court of Appeals ran afoul of the first amendment by finding that Petitioner could be liable for tortious concert of action because of its participation in the "joint OSHA petition campaign," Appendix C, p. 27a, 140 Mich. App. at 34, 363 N.W.2d at 729, and by excusing from such liability the only named wheel manufacturer that had *not* so jointly petitioned the government. As noted above, this Court's *Noerr-Pennington* doctrine protects Petitioner from liability for engaging in protected first amendment petitioning activity. It is undeniable that Petitioner engaged in such activity. It is further undeniable that the effect of the court of appeals's opinion is that such activity is the basis of a tort claim. The Constitution requires, however, that Petitioner not be subject to liability for engaging in such protected conduct. *See Noerr, supra*, 365 U.S. at 138; *California Motor Transport, supra*, 404 U.S. at 510. As a result, the Michigan Court of Appeals's action in this case violates the first amendment; and this Court should review and overturn that court's decision.

C. The Michigan Court's Distinction Between The Imposition Of Liability For First Amendment Activity Itself And A Finding That Such Activity May "Be Interpreted As A Cooperative Effort To Avoid Responsibility" For Risks Completely Ignores The Very Protected Nature Of Such A "Cooperative Effort."

In an attempt to sidestep the constitutional issue that Petitioner now wishes to bring before this Court, the Michigan Court of Appeals commented as follows:

> Defendants [including Petitioner] are correct insofar as the OSHA petition campaign cannot be viewed as

> tortious activity. Nonetheless, the same activity indicates an awareness of the wheel industry as a whole of the gravity of the problem *and could be interpreted as a cooperative effort to avoid responsibility for the risks posed by multi-piece rims.*

Appendix C, p. 27a n.2, 140 Mich. App. at 34 n.2, 363 N.W.2d at 729 n.2 (emphasis and parenthetical added).

Far from saving the court of appeals's decision from constitutional infirmity, this footnote serves to underscore the impermissibility of the court's position. The Michigan Court of Appeals apparently is of the opinion that a constitutionally cognizable distinction exists between a finding that Petitioner can be subject to tort liability for participating in the "OSHA petition campaign"—a finding properly rejected by the court of appeals—and that court's finding that Petitioner may be subject to tort liability because "the *same*" constitutionally protected petitioning "activity . . . could be interpreted as a *cooperative effort* to avoid responsibility for the risks posed by multipiece rims."[7] Appendix C, p. 27a n.2, 140 Mich. App. at 34 n.2, 363 N.W.2d at 729 n.2 (emphasis added). The court of appeals is wrong.

The effect of the Michigan Court of Appeals's decision is that Plaintiff-Respondent may establish tortious concert of action because Petitioner's protected petitioning conduct can *itself* be "interpreted" as tortious concerted activity. Under *Noerr-Pennington*, Petitioner cannot be subject to liability for this conduct. *See supra*. Yet the court of appeals's hold-

---

[7] That such protected petitioning activity might indicate an "awareness" of the industry, *see supra*, Appendix C, p. 27a n.2, 140 Mich. App. at 34 n.2, 363 N.W.2d at 729 n.2, is irrelevant for purposes of a concert of action claim because what is required for tortious concert of action, as the court of appeals itself repeatedly emphasized, is "join[t] . . . *activity*." Appendix C, pp. 25a-26a, 140 Mich. App. at 32-33, 363 N.W.2d at 728, 729. In any event, that court found that such conduct *both* indicated an awareness "***and***" could "be interpreted as" the required "cooperative effort" for concert of action purposes. *Id.*, p. 27a n.2, 140 Mich. App. at 34 n.2, 363 N.W.2d at 729 n.2. Hence, the court of appeals clearly found that it could independently impose liability for the protected conduct itself.

ing that Petitioner's joint conduct in petitioning OSHA "could be interpreted as a cooperative effort" sufficient to establish tortious concert of action does precisely that. When the Michigan Court of Appeals concluded that Petitioner's protected conduct could constitute concerted action on which Petitioner might be found liable, it exceeded the bounds of the first amendment.[8]

D. The Michigan Court Of Appeals's January 2, 1985 Amendments To Its August 9, 1984 Opinion Constitute An Impermissible Pretextual Afterthought.

The Michigan Court of Appeals "amended," *sua sponte*, its earlier opinion in this case. *See* Appendices C, I. These amendments, however, only make more obvious the constitutionally impermissible basis for the court's finding on Respondent's concert of action claim and, in any event, should not, even on their face, be found to save the court's decision from reversal.

---

[8] The Michigan Court of Appeals's further comment that Petitioner's acts might have been an "effort to avoid responsibility" for the risk posed by multi-piece rims does not cause, even if such comment were accurate, Petitioner's conduct to be any less protected under the first amendment. Aside from the fact that OSHA found considerable merit in Petitioner's efforts and indeed adopted a safety standard as requested, *see supra* footnote 4 and accompanying text, the court's opinion that Petitioner's effort was less than altruistic is immaterial since the first amendment protects, and indeed *anticipates*, the most selfish of petitioning activity by businesses: "[I]t is quite probably people with just such a hope of personal advantage who provide much of the information upon which governments must act." *Noerr*, 365 U.S. at 139. Thus, it is equally sensible to find here that a

> construction . . . that would disqualify people from taking a public position on matters in which they are financially interested would . . . deprive the government of a valuable source of information and, at the same time, deprive the people of their right to petition in the very instances in which that right may be of the most importance to them.

Id. Clearly, the existence of a standing precedent that "manufacturers [that] through [an association], . . . campaigned for promulgation of federal standards," Appendix C, p. 20a, 140 Mich. App. at 26, 363 N.W.2d at 726, may effectively be liable in tort for such activity may well have a "chilling effect" on the exercise of such entities' first amendment rights.

After Petitioner applied for Leave to Appeal to the Michigan Supreme Court, Petitioner's Brief having reasserted and re-emphasized the constitutional defect of the Michigan Court of Appeals's decision, the court of appeals released its Amended Opinion, which "corrected for publication" the court's first Opinion. *See* Order of January 2, 1985 (Appendix I). In the Amended Opinion, the court of appeals attempted to insert an alternative basis for finding the joint activity required for Respondent's concert of action claim. *See* Section E, *infra*. The court of appeals also completely excised two sentences emphasizing the importance, to the concert of action claim, of Petitioner's protected first amendment activity. The relevant portion of the Michigan Court of Appeals's *first* Opinion read as follows:

> Plaintiff also submitted proof to show the defendant wheel manufacturers acted jointly, pursuant to a common design. First, although defendants are correct insofar as the OSHA petition campaign cannot be viewed as tortious activity, the same activity evidences an awareness on the part of the wheel industry ***as a whole*** of the gravity of the problem. *Moreover, if it was feasible for employers to warn and train their employees as to the danger of multi-piece wheels, then it would have been equally feasible for the wheel manufacturers to assist in doing the same.* Instead, they proposed a government role in the process to relieve themselves of the burden. *It is noteworthy that the decedent's accident occurred a short time before OSHA finally promulgated the regulation* urged by defendants. Furthermore, the adequacy of the manufacturers' warnings is a question of fact for the jury. *Dunn, supra*, p 80. Here, it is not clear from the record whether plaintiff had any warning whatsoever from the manufacturer of the wheel, or that any of the defendant wheel manufacturers were in the practice of supplying warnings to those affected by the use of their products.
>
> Second, plaintiff provided evidence that the defendant wheel manufacturers were *aware* of the dangers

> posed by mismatch of component parts. Rather than change the design of the components themselves, they composed charts to show which products were safely interchangeable and which were not. Again, there was no indication that such a chart found its way into the decedent's hands.
>
> Third, plaintiff might submit proofs at trial that ***all*** three-piece rims pose risks which are "unreasonable in light of the foreseeable injuries". *Owens* v *Allis-Chalmers Corp*, 414 Mich 413, 425; 326 NW2d 372 (1982). The OSHA petition activity was, arguably, a cooperative effort by the wheel manufacturers to create a regulatory buffer and avoid responsibility for those risks. The venture indicates a tacit understanding and mutual encouragement to refrain from taking more direct steps to prevent this danger.

See attached Appendix B, pp. 13a-14a (emphasis added; bold face indicates emphasis in original).

The court's later, "Amended Opinion" reads in relevant part as follows:

> *By engaging* in the joint OSHA petition campaign, the wheel manufacturers arguably proposed a government role to relieve themselves of their duty to warn those working with the multi-piece rims.
>
> Plaintiff provided documentation showing that the multi-piece rims manufactured and/or marketed by the wheel manufacturers were dangerous and that the manufactuers knew of the danger posed by their products and the mismatch of components of their products. Plaintiff might submit proofs at trial that all three-piece rims posed risks "unreasonable in light of the foreseeable injuries". *Ownes* [sic], *supra*, p 425. Plaintiff *also* showed that, rather than change the design of the rims or the rim components, the wheel manufacturers acted *jointly in exchanging information and composing charts*

> to show which products were safely interchangeable and which were not. *This conduct, as well as the OSHA petition campaign*, could indicate a tacit understanding and mutual encouragement to refrain from taking more reasonable steps to prevent the danger posed by the multi-piece wheel rims.

See January 2, 1985 Amended Opinion, Appendix C, pp. 27a-28a, 140 Mich. App. at 34, 363 N.W.2d at 729 (emphasis added) (footnote omitted, *see supra*).

The Michigan Court of Appeals's Amended Opinion is notable first because of what it does *not* contain. The Amended Opinion completely excised a statement that "[i]t is noteworthy that the decedent's accident occurred a short time before OSHA finally promulgated the *regulation urged by defendants*." *See* August 9, 1984 Opinion, Appendix B, p. 13a (emphasis added). Further, the Amended Opinion omits a reference to the substance of the proposed regulation. The Amended Opinion acknowledges that the proposed regulation would have established an "*employer*" obligation to assure rim service safety. *See* Appendix C, p. 20a, 140 Mich. App. at 26, 363 N.W.2d at 726. The first Opinion had seized upon this fact, stating:

> Moreover, if it was feasible for *employers* to warn and train their employees as to the danger of multi-piece wheels, then it would have been equally feasible for the wheel manufacturers to assist in doing the same. Instead, they proposed a government role in the process to relieve themselves of the burden.

Appendix B, p. 13a (emphasis added). Because this statement had followed a statement that itself emphasized the OSHA petitioning activity, *see id.*, the statement as to the court's impression of what Petitioner might have done to warn, *judging from its protected conduct*, clearly itself related to such protected conduct.

The court of appeals also belatedly attempted to correct the first Opinion's constitutional deficiency by adding and

modifying certain language. Most significant is the amendment of the bottom of the only full paragraph now found at Appendix C, 27a-28a, 140 Mich. App. at 34, 363 N.W.2d at 729:

> Plaintiff also showed that, rather than change the design of the rims or the rim components, the wheel manufacturers *acted jointly* in exchanging information and composing charts to show which products were safely interchangeable and which were not. This conduct, *as well as* the OSHA petition campaign, could indicate a tacit understanding and mutual encouragement to refrain from taking more reasonable steps to prevent the danger posed by the multi-piece wheel rims.

(emphasis added)

The first Opinion had been significantly different on this point:

> Second, plaintiff provided evidence that the defendant wheel manufacturers were *aware* of the dangers posed by mismatch of component parts. Rather than change the design of the components themselves, they composed charts to show which products were safely interchangeable and which were not. Again, there was no indication that such a chart found its way into the decedent's hands.

Appendix B, p. 13a (emphasis added).

While it is obvious that the court's first Opinion made reference to the composition of charts, in no way did the first Opinion indicate that such composition could be joint *activity* sufficient for a concert of action claim. Unlike the Amended Opinion, which stated that such composition was joint action, *see* Appendix C, pp. 27a-28a, 140 Mich. App. at 34, 363 N.W.2d at 729, the first Opinion merely found that such composition indicated "aware[ness]." The critical point here is that mere "awareness" is not, and would not have been, the "join[t] . . . *action*" that the court itself repeat-

edly emphasized was essential for a concert of action claim. *See* Appendix C, pp. 25a-26a, 140 Mich. App. at 32-33, 363 N.W.2d at 728, 729. The Amended Opinion apparently attempted to convert composition of charts, which theretofore had indicated only the insufficient (for concert of action purposes) "awareness," into joint action that purportedly could itself sustain a concert of action claim in the event the court's reliance on protected joint petitioning activity were found to be unconstitutional.

The irony of this case, however, is that the amendments of the court's Opinion, far from serving to avoid the first amendment problem, actually highlighted the court's impermissible reliance upon Petitioner's protected conduct in reversing the trial court's entry of summary judgment in favor of Petitioner.

If the basis of the court's decision were shown to be that Petitioner's protected conduct constituted tortious "concert of action," the *Noerr-Pennington* doctrine would require reversal of the court's opinion on this constitutional issue. *See supra*, Argument Sections A, B. It is beyond peradventure that constitutional adjudication will scrutinize the *substance* of an alleged government infringement of citizens' rights—no matter what gloss or description government may put on or employ with respect to such an infringement. Indeed, this Court will countenance the interposition by government of no "pretext for suppressing" precious first amendment rights. *Young* v. *American Mini Theatres*, 427 U.S. 50, 84 (1976) (Powell, J., concurring); *see also Gay Student Services* v. *Texas A&M University*, 737 F.2d 1317, 1322 & n.7 (5th Cir.) (university's asserted justification for infringing first amendment associational rights is "an afterthought"), *cert. denied and app. dismissed*, 105 S. Ct. 1860 (1985); *Alma Society, Inc.* v. *Mellon*, 601 F.2d 1225, 1235 (2d Cir.) ("we must be sure the rationale advanced" in an equal protection case "is not simply an afterthought supplied purely by hindsight") (citing *Cleveland Board of Education* v. *LaFleur*, 414 U.S. 632, 653 (1974) (Powell, J., concurring)

("after-the-fact rationalizations" in equal protection case "unsupported in the records")), *cert. denied*, 444 U.S. 995 (1979).

Here, the Michigan Court of Appeals's subsequent modifications of its Opinion merely offered an after-the-fact rationalization or pretext for its earlier conclusion. The language of the court's first Opinion, relying exclusively on protected activity to find that Petitioner could be subject to tortious concert of action liability, reveals the basis of the court's decision. Hence, this Court should act to protect Petitioner from this improper attempt to rationalize on alternative grounds what can only be found to be a violation of Petitioner's first amendment rights.

Even the court's "Amended Opinion," however, makes it obvious that the court based its finding as to the maintainability of Respondent's concert of action claim primarily upon Petitioner's protected conduct. The Amended Opinion did not change the court's initial and sustained emphasis on Petitioner's protected activity. *See* Appendix C, pp. 27a-28a, 140 Mich. App. at 34, 363 N.W.2d at 721. Nor did the Amended Opinion abolish the distinction between AMF, the only wheel manufacturer that did not engage in protected activity, and the other wheel manufacturers, all of whom petitioned the government and all of whom were found to be subject to a tortious concert of action claim. *Id.* at 21a, 28a-29a, 140 Mich. App. at 27, 35, 363 N.W.2d at 726, 730. Thus, even if this Court were to ignore the apparent purposes of the Michigan Court of Appeals's amendments of its Opinion, that court's continued, almost exclusive stated reliance upon protected activity renders its decision constitutionally unacceptable. *Cf. Greenwood Utilities* v. *Mississippi Power Co.*, 751 F.2d 1484, 1503 (5th Cir. 1985) (expert testimony that might have been sufficient to prevent summary judgment may not do so where such experts "relied almost exclusively on conduct that we have determined to be protected under the *Noerr-Pennington* doctrine in reaching their conclusions . . .").

E. In Any Event, The Court of Appeals's Amendments Relating To Exchange of Chart Information As Concerted Activity Clearly Failed To Eliminate The Decision's Constitutional Infirmity Because The Record Is Totally Devoid Of Any Evidence That This Accident Involved A Mismatching Of More Than One Manufacturer's Components.

A final critical fact is that the only *un*protected purported concerted activity identified by the Michigan Court of Appeals—Petitioner's exchange of information to compose charts for safe multi-piece wheel assembly with its co-defendants—can never be found to support a tortious concert of action claim on the admitted facts of this case. As noted above, *see supra*, footnote 3, the multi-piece wheels in question are composed of three components. *See also* photos attached as Appendix E. The sole purpose of the manufacturers' exchange of chart information described by the court of appeals, *see* Amended Opinion, Appendix C, p. 28a, 140 Mich. App. at 34, 363 N.W.2d at 729, was the prevention of mismatching of various manufacturers' wheel components. The court of appeals undeniably acknowledged this fact, stating that Petitioner's co-defendant, the Budd Corporation, "noted that, while some rim components manufactured by *different companies* were interchangeable, in some cases '*mixed* side rings are a definite safety hazard.'" *See id.*, p. 20a, 140 Mich. App. at 27, 363 N.W.2d at 726 (emphasis added). Immediately following this quotation, the court itself explicitly found that "[t]he manufacturers exchanged information on part interchangeability so that charts could be formulated to guide mechanics on [the part mismatch] problem." *Id.* at 20a-21a, 140 Mich. App. at 27, 363 N.W.2d at 726.

This fact is significant because Respondent has unequivocally admitted that she "could not identify the specific manufacturer of the subject wheel or the vehicle from which it came." *Id.* at p. 19a, 140 Mich. App. at 25, 363 N.W.2d at 725. Thus, Respondent has admitted that she does not know whether the parts of *different* wheel manufacturers were

involved in the multi-piece wheel accident in question or whether the accident wheel consisted of components manufactured by the same company, which components explosively disengaged because, for example, they were misassembled. As indicated above, the exchange of matching chart information could be relevant *only* if parts from different wheel manufacturers were involved. In light of Respondent's admission that she can *never* factually prove that the accident at issue involved a mismatching of more than one manufacturer's components, the exchanging of chart information to avoid rim component mismatches can in *no event* be a proximate cause of her decedent's injuries. At best, as the court of appeals indicated, Respondent can prove only that her decedent's injuries were proximately caused by a multi-piece wheel having three components.

Because the exchange of matching chart information cannot be a proximate cause of Respondent's decedent's injuries, Respondent clearly cannot, using evidence of such exchange, satisfy the requirements of a tortious concert of action claim: "join[t] engage[ment] in a tortious activity as a result of which plaintiff was harmed." *See* Appendix C, p. 25a, 140 Mich. App. at 32, 363 N.W.2d at 728. Yet the only *other* concerted activity identified by the court was Petitioner and its co-defendants' petitioning of OSHA. Thus, on the facts of this case as admitted, the *only* "concerted activity" that arguably can be relevant to the rim accident is Petitioner's protected first amendment activity. Therefore, the effect of the Michigan Court of Appeals's decision is to improperly permit liability to flow exclusively from Petitioner's protected first amendment activity.

CONCLUSION

This Court should take this opportunity to examine the application of the *Noerr-Pennington* doctrine in a non-antitrust context. The danger to our governmental system and to our society due to infringements upon first amendment petitioning rights is as great where tort liability may be imposed for such activity as it is where antitrust liability may be so imposed. In particular, this Court should act to correct the constitutionally indefensible finding by the Michigan Court of Appeals that Petitioner's protected petitioning activity may constitute the basis for "concert of action" tort liability.

Petitioner therefore requests that this Court grant its Petition for a Writ of Certiorari.

Respectfully submitted,

Xhafer Orhan (Counsel of Record)
Daniel Patrick Malone
William J. Champion III
Carey A. DeWitt

BUTZEL LONG GUST KLEIN & VAN ZILE
A Professional Corporation
1881 First National Building
Detroit, Michigan 48226
Telephone: (313) 963-8142

Counsel for Petitioner, The Firestone Tire & Rubber Company

Of Counsel:

John P. Palumbo
Assistant General Counsel
The Firestone Tire &
Rubber Company

Dated: September 20, 1985

No.

IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1985

THE FIRESTONE TIRE & RUBBER COMPANY,
Petitioner,

v.

THELMA COUSINEAU, PERSONAL REPRESENTATIVE OF THE ESTATE OF MARK COUSINEAU,
Respondent.

APPENDIX

BUTZEL LONG GUST KLEIN & VAN ZILE
A Professional Corporation
By: Xhafer Orhan (Counsel of Record)
Daniel Patrick Malone
William J. Champion III
Carey A. DeWitt
1881 First National Building
Detroit, Michigan 48226
Telephone: (313) 963-8142
Counsel for Petitioner, The Firestone Tire & Rubber Company

Of Counsel:
John P. Palumbo
Assistant General Counsel
The Firestone Tire & Rubber Company

THE AMERICAN PRINTING COMPANY
1200 WEST FORT STREET, DETROIT, MICHIGAN 48226 — (313) 963-9310

INDEX TO APPENDICES

Appendix		Page
A	Wayne County Circuit Court Order, dated December 10, 1982, granting Petitioner's Motion for Summary Judgment	1a
B	Michigan Court of Appeals's unpublished *per curiam* opinion (first Opinion), dated August 9, 1984, reversing the trial court's entry of Summary Judgment and remanding the case on the issue of tortious concert of action	3a
C	Michigan Court of Appeals's published Amended Opinion, dated January 2, 1985	17a
D	Michigan Supreme Court Order, dated June 24, 1985, denying Application for Leave to Appeal	32a
E	Photographs A and B, depicting tube-type tire multi-piece truck wheels	34a
F	45 Federal Register No. 20 (Jan. 28, 1980), pp. 6713-17 (eff. April 28, 1980)	36a
G	49 Federal Register No. 24 (February 3, 1984), p. 4341	75a
H	Michigan Court of Appeals's Order, dated November 29, 1984, denying Petitioner's Application for Rehearing	133a
I	Michigan Court of Appeals's *sua sponte* Order, dated January 2, 1985, stating the court's intention to "correct" its August 9, 1984 *per curiam* opinion for publication	135a

APPENDIX A

Appendix A
Order Granting Defendants'
Motions for Summary Judgment

STATE OF MICHIGAN
IN THE CIRCUIT COURT
FOR THE COUNTY OF WAYNE

THELMA COUSINEAU, Personal Representative of the Estate of Mark Cousineau, Deceased,

Plaintiff,

HON. IRWIN BURDICK
No. 80-039185-NP

vs.

FORD MOTOR COMPANY, a foreign corporation, INTERNATIONAL HARVESTER COMPANY, a foreign corporation, GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation, KELSEY HAYES CORPORATION, a foreign corporation, BUDD CORPORATION, a foreign corporation, THE FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation, FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,

Defendants.

ORDER GRANTING DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT

At a session of said Court, held in the City County Building, City of Detroit, County of Wayne, State of Michigan, on Dec 10 1982

(s) HON. IRWIN H. BURDICK
Circuit Court Judge

This matter having come before the Court on defendants' Motions for Summary Judgment pursuant to Michigan GCR

117.2(1) & (3); and the Court having reviewed the matter and having heard oral arguments on July 23, 1982 and December 10, 1982, and being otherwise advised in the premises;

IT IS HEREBY ORDERED that, for the reasons set forth on the December 10, 1982 record, each of defendants' Motions for Summary Judgment pursuant to GCR 117.2(1) & (3) shall be, and hereby is, GRANTED.

(s) HON. IRWIN BURDICK

Date:

APPENDIX B

Appendix B
Opinion

OPINION

STATE OF MICHIGAN COURT OF APPEALS

THELMA COUSINEAU, Personal Representative of the Estate of MARK COUSINEAU,

Plaintiff-Appellant,

v

[Aug 09 1984]
No. 69363

FORD MOTOR COMPANY, a foreign corporation, INTERNATIONAL HARVESTER COMPANY, a foreign corporation, GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation, KELSEY HAYES CORPORATION, a foreign corporation, BUDD CORPORATION, a foreign corporation, FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation, FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,

Defendants-Appellees.

Before: R.S. Gribbs, P.J., H. Hood and R.M. Maher, JJ.
PER CURIAM

Plaintiff appeals by right from an order granting summary judgment for defendants on her wrongful death claim, and a subsequent order denying her motion for reconsideration and denying her leave to amend her complaint. We affirm in part and reverse in part.

Plaintiff brought suit on October 29, 1980, alleging her son, Mark Cousineau (decedent), was killed on May 8, 1979, while repairing a truck tire mounted on a three-piece wheel. Decedent was an employee of Jaeger Brothers Construction Co, which owned several trucks, including four or five made by Ford, two by International Harvester, and at least one Fruehauf Trailer. In addition, Jaeger Brothers had numerous tires and wheels collected from other trucks at the work-

place. On May 8, 1979, decedent, who had only been employed for two days, was assigned to repair truck tires. While decedent was working on a three-piece rim, the wheel explosively disengaged, striking and killing decedent. Ronald Jaeger found a three-piece rim held together by a safety chain at the accident site. The tire was still intact and was subsequently used. The rim parts were at first kept separate, but were later mixed with the general rim stock of the business, rendering identification of the rim involved in the accident impossible.

Plaintiff sued wheel manufacturers Goodyear, Kelsey Hayes, Budd and Firestone, and vehicle manufacturers Ford and International Harvester. Plaintiff claimed decedent's injuries resulted from negligent wheel design, failure to adequately warn, and failure to provide safety devices by the wheel manufacturers. She further alleged that the defendant vehicle manufacturers negligently produced and sold vehicles which required and/or utilized multi-piece wheels. Plaintiff's complaint also contained an allegation of breach of implied warranty.

Goodyear and Kelsey Hayes moved for a more definite statement of the claim, stating that plaintiff "must be required to identify the manufacturer of the wheel and rim" involved in the accident, and "must be ordered to identify one vehicle manufacturer".

Plaintiff filed an amended complaint and added Fruehauf (vehicle manufacturer) and AMF (wheel manufacturer) as defendants. In the amended complaint, plaintiff set forth claims of alternative liability and concert of action.

All defendants except AMF and Fruehauf moved for summary judgment pursuant to GCR 1963, 117.2(1) and (3), based on plaintiff's inability to attribute the wheel in question to a particular wheel or vehicle manufacturer. Plaintiff

admitted, then as now, that she could not identify the specific manufacturer of the subject wheel or the vehicle from which it came. Attached to the wheel manufacturers' motions were affidavits of their employees, each of whom averred that defendants' products are identifiable, since they are stamped with a part number and name of the manufacturer. In addition, the affiants for Firestone and Budd stated that truck rims are distinguishable from one another because of the multiplicity of rim designs. International Harvester submitted an affidavit and company records showing that the International Harvester truck owned by decedent's employer was originally equipped with two-piece rims.

After two adjournments of the motion for summary judgment to permit discovery, plaintiff filed a response to the motions. She asserted that the named defendants included "the only major manufacturers" of three-piece wheels "similar to the one that plaintiff's decedent was handling at the time of his injury". Regarding the identification issue, plaintiff argued that the manufacturer's stamp "is subject to wear, rust and corrosion" which "obliterates the identification". Plaintiff contended that truck rims made by various defendants are "very similar in size and configuration", that "there was no one design that could be identified with one specific manufacturer", and that "the wheels are essentially of a generic design". Plaintiff also stated that the manufacturer of a wheel assembly could not be determined "without the closest of examination".

In support of her alternative liability and concert of action claims, plaintiff submitted numerous documents obtained through discovery. The pertinent matter in the exhibits is summarized as follows:

The manufacturers of three-piece rims were made aware, through accident reports, of the problems arising from their products, but ascribed the problems to improper "shop

practices". These practices included non-compliance with the manufacturers' recommended procedures for assembly, disassembly, and maintenance and safety precautions. Firestone urged vehicle manufacturers to print warning materials in the vehicle owner manual. However, the wheel manufacturers felt that printed warnings on the rim components themselves could be ineffective since they would be covered by corrosion. In a letter to Budd dated May 11, 1976, an attorney for Firestone denigrated the effectiveness of such warnings and further stated, "I would hate to be confronted by a plaintiff's lawyer with another company's warning if my product did not have one". The same letter proposed an industry meeting and urged that the different manufacturers not take varying positions on the warning issue.

Beginning in 1976, the wheel manufacturers, through the "Rubber Manufacturers Association" and "Multipiece Rim Manufacturers" organizations, campaigned for promulgation of federal OSHA standards governing work with multi-piece rims. Their goal was "to remove all of the burden from the Wheel and Rim manufacturers" and to place responsibility for safety precautions "on the only person in practical position to discharge such responsibility, *i.e.* the employer". In April of 1980, OSHA promulgated a regulation requiring the posting of information and warnings in truck tire maintenance facilities, and training of mechanics working with multi-piece wheels.

A Budd document dated February 2, 1976, noted the tendency of "standardization" in the truck rim industry and the dangers posed by the similarity of different products. It noted that, while some rim components manufactured by different companies were interchangeable, in some cases "mixed side rings are a definite safety hazard". The manufacturers exchanged information on part interchangeability so that charts could be formulated to guide mechanics on this problem.

Appendix B
Opinion

The defendant vehicle manufacturers purchased substantial numbers of multi-piece rims for use as original equipment. The petition to OSHA indicates that 98% of all multi-piece rims sold are used as original equipment. However, there is no evidence in the record that vehicle manufacturers, as opposed to wheel manufcturers, were involved in the OSHA petition campaign. References to defendant wheel manufacturer AMF were also absent from plaintiff's documents, since AMF sold its truck rim subsidiary ("Cleveland Welding Division") to Budd in 1959.

At the December 10, 1982, hearing on the motion for summary judgment, plaintiff argued that summary judgment would be premature, since discovery was not complete. Counsel for Goodyear replied that no amount of discovery would disclose the identity of the manufacturer of the wheel involved in the accident. In granting the motion in favor of defendants, the trial judge stated, "We're not talking about a generic product that cannot be identified". Rather, the court concluded, "This is a case where the wheel that we're talking about disappeared".

Prior to the grant of summary judgment, plaintiff moved for leave to amend her complaint. She submitted a proposed third amended complaint containing an allegation of civil conspiracy, and a fourth amended complaint which advanced a claim of "enterprise liability". *Hall* v *E. I. DuPont De Nemours & Co*, 345 F Supp 353 (E D NY 1972). At the hearing on the motions to amend, plaintiff conceded "there's no cause of action for conspiracy unless you've got an underlying cause". Plaintiff also requested reconsideration of the grant for summary judgment.

The trial judge denied leave to amend the complaint without comment. He also denied the motion for reconsideration, distinguishing *Abel* v *Eli Lilly & Co*, 94 Mich App 59; 289 NW2d 20 (1979), *aff'd* 418 Mich 311; 343 NW2d 164 (1984).

Appendix B
Opinion

Alternative Liability

Plaintiff first contests the granting of the summary judgment for defendants on plaintiff's alternative liability claim. She argues that the theory of alternative liability applies where a plaintiff, through no fault of his own, cannot identify the specific defendant responsible for his injuries.

The trial court did not specify the court rule underlying its grant of summary judgment. It granted summary judgment because the wheel would be identifiable if it were available, basing this conclusion on plaintiff's admission and defendant's affidavit. Since the court went beyond the pleadings in reaching its decision, the judgment will be reviewed as granted pursuant to GCR 1963, 117.2(3). Under this court rule, the nonmoving party must establish that he has a case on the law and that there are some evidentiary proofs to support his allegation as to any material fact. *Durant* v *Stahlin*, 375 Mich 628, 638; 135 NW2d 392 (1965).

Substantial guidance is provided by the recent decision in *Abel*, in which the Supreme Court expressed formal approval of the theory of alternative liability. 418 Mich 329. As noted by this Court in *Greene* v *Union Optical Center*, 95 Mich App 167, 171; 290 NW2d 111 (1980), "[i]n certain situations, a plaintiff's burden of proof may be shifted to the defendants where more than one defendant has been negligent and the plaintiff is unable to prove which of the two defendants caused his injury". Prerequisite to such a shift, plaintiff must show, first that all defendants acted tortiously; second, that plaintiff was harmed by one of the defendants; and, third, that plaintiff, "through no fault of [his or her] own, [is] unable to identify which actor caused the injury. *Abel*, 418 Mich 331-332. Plaintiff fastens her argument onto the latter language, ignoring the policy underlying alternative

liability theory. That policy was clearly stated by the Court in the *Abel* opinion:

> "[The] reason for the exception to traditional rules is to prevent the injustice of allowing proved wrongdoers to escape liability for an injury inflicted upon an innocent plaintiff 'merely because *the nature of their conduct and the resulting harm made it difficult or impossible to prove which of them has caused the harm.*' " 418 Mich 327, *citing* 2 Restatement Torts, 2nd, §433B, Comment f, p 446 (emphasis added).

In *Abel*, the plaintiffs alleged they were harmed by their consumption of synthetic estrogens. 418 Mich 318. Their inability to identify the specific manufacturer which caused the harm resulted from the inherent nature of the product. Once ingested, the medication was irretriveable for use as evidence. Also, plaintiffs alleged that defendants used "a generic marketing scheme to promote the product". 418 Mich 336. In its decision in *Abel*, this Court noted the difficulties posed by the number of defendants and by the length of time between the ingestion of the allegedly defective drug and the appearance of the damages. 94 Mich App 76. In this case, the wheel assembly which gave rise to the injury did not disappear, nor was its source rendered unidentifiable by the defendants' conduct. It remained available for use as evidence and was, in fact, kept separate from the wheel inventory of decedent's employer for quite some time. Plaintiff argues that the similarity of three-piece rims renders them unidentifiable, but admits the wheel could be identified if it were available. The interchange of parts between wheel rim manufacturers indicates only that more than one manufacturer may have made the components in question, not that the parts could not be identified. Plaintiff further contends that the identifying stamp on the product was probably obscured by dirt and corrosion, so the decedent could not read it. This is sheer speculation, given the unavailability of the evidence.

As to the vehicle manufacturers, plaintiff's claim of alternative liability is insufficient as well. Trucks are not generic products posing identification difficulties. Plaintiff admits she cannot identify the particular vehicle which was equipped with the subject wheel assembly. In addition, she cannot prove that the wheel was used as original equipment on any of the trucks at decedent's work place. The defendant vehicle manufacturers are not in the business of making three-piece rims. Though a vehicle manufacturer may be held liable for damages caused by defective component parts supplied by another entity, *Comstock* v *General Motors Corp*, 358 Mich 163; 99 NW2d 627 (1959), this duty has not yet been extended to component parts added to a vehicle subsequent to distribution. Assuming the existence of a defect, plaintiff must "trace that defect in the hands" of the defendant. *Caldwell* v *Fox*, 394 Mich 401, 410; 231 NW2d 46 (1975). "The threshold requirement of any product liability action is identification of the injury-causing product and its manufacturer." *Abel*, 418 Mich 327. Failure of a component not supplied by the manufacturer does not give rise to liability on the manufacturer's part. *Antcliff* v *State Employees Credit Union*, 95 Mich App 224, 231-233; 290 NW2d 420 (1980), *aff'd* 414 Mich 624; 327 NW2d 814 (1982).

Concert of Action

Plaintiff next argues that the trial court erred in granting summary judgment in favor of defendants on plaintiff's concert of action claim. Plaintiff argues that she submitted documentary evidence of the joint efforts and conscious parallelism in the wheel industry, and that defendants acted to direct government inquiry away from themselves.

Because the trial court relied on affidavits outside the pleadings in granting summary judgment, we again review the summary judgment as one granted pursuant to GCR 1963, 117.2(3). A motion for summary judgment pursuant to

this court rule should not be granted unless it is impossible for the claim asserted to be supported by evidence at trial. *Rizzo* v *Kretschmer*, 389 Mich 363; 207 NW2d 316 (1973).

A plaintiff may proceed on the theory of concert of action if he can prove "that all defendants acted tortiously pursuant to a common design". *Abel*, 418 Mich 338. "Express agreement is not necessary, and all that is required is that there be a tacit understanding." Prosser, Torts (4th ed), §46, p 292. "A concert of action case does not require that the plaintiff be unable to identify the specific defendant who caused his injury." *Abel*, 418 Mich 338. Rather, each defendant "is jointly and severally liable for the entire amount of damages, although he may be entitled to contribution from his fellow tort feasors." *Abel*, 94 Mich App 73. "Even if defendant caused no harm himself, he is liable for the harm caused by his fellows because all acted jointly." 94 Mich App 73. ". . . [T]o state a cause of action, a plaintiff need only allege that the defendants were jointly engaged in tortious activity as a result of which the plaintiff was harmed." *Abel*, 418 Mich 338, citing *Walters* v *Sargent*, 390 Mich 775; 210 NW2d 315 (1973), *adopting partial dissent* in *Walters* v *Sargent*, 46 Mich App 379, 384; 208 NW2d 207 (1973).

In this case, the trial court did not give this claim the individual consideration it deserved, but disposed of it on the same basis as the alternative liability claim—failure to identify the source of the wheel. As noted above, the identification problem is not a *sine qua non* of a concert of action claim. Each defendant who acted jointly and tortiously is liable, even though his conduct was not the direct cause of the injury. Thus, in the context of this case, we hold that it does not matter if the party causing the injury in fact is not joined in the concert of action claim, since all those acting

in concert, named and unnamed defendants, are jointly and *severally* liable for the entire harm. *Abel*, 94 Mich App 73.[1]

As discussed below, plaintiff is entitled to recover on a concert of action theory if she can prove that all three-piece truck wheel assemblies are defective, or that the defendant wheel manufacturers breached their duty to warn of a danger posed by their products, and that defendants acted jointly in marketing defective products and/or failing to adequately warn those in contact with them. Evidence supporting her claim would preclude summary judgment. *Rizzo*, *supra*.

In order to prove her concert of action claim against the wheel manufacturers, plaintiff must first show that they acted negligently. "It is now established that the manufacturer and wholesaler of a product, by marketing it, owe a legal duty to those affected by its use." *Moning* v *Alfono*, 400 Mich 425, 433; 254 NW2d 759 (1977). A manufacturer's duty also includes dissemination of warnings or instructions "appropriate for the safe use of its products". *Antcliff*, 414 Mich 638. Defendants in this case had this duty towards those in contact with three-piece wheels.

Plaintiff submitted an affidavit and other proof to prove the wheels defective and that defendants were aware of the numerous incidences of death and injury resulting from wheel explosions. The defendants argued that their products are safe when used properly, and that they took measures to warn those working with the wheels. These arguments relating to the reasonableness of defendants' conduct are for the

---

[1] Although each defendant tortfeasor who acts in concert is jointly and severally liable, the plaintiff may join others in the suit who also engaged in such conduct, GCR 1963, 206.1, and defendants may seek contribution after judgment. MCL 600.2925a; MSA 27A.2925(1); *Abel*, 94 Mich App 73. The defendant may also implead nonjoined tortfeasors as third party defendants and seek contribution. GCR 1963, 204.

trier of fact. *Smith* v *E.R. Squibb & Sons*, 405 Mich 79, 88-90; 273 NW2d 476 (1979); *Dunn* v *Lederle Laboratories*, 121 Mich App 73, 79-80; 328 NW2d 576 (1982), *lv den* 417 Mich 1098 (1983).

Plaintiff also submitted proof to show the defendant wheel manufacturers acted jointly, pursuant to a common design. First, although defendants are correct insofar as the OSHA petition campaign cannot be viewed as tortious activity, the same activity evidences an awareness on the part of the wheel industry *as a whole* of the gravity of the problem. Moreover, if it was feasible for employers to warn and train their employees as to the danger of multi-piece wheels, then it would have been equally feasible for the wheel manufacturers to assist in doing the same. Instead, they proposed a government role in the process to relieve themselves of the burden. It is noteworthy that the decedent's accident occured a short time before OSHA finally promulgated the regulation urged by defendants. Furthermore, the adquacy of the manufacturers' warnings is a question of fact for the jury. *Dunn, supra*, p 80. Here, it is not clear from the record whether plaintiff had any warning whatsoever from the manufacturer of the wheel, or that any of the defendant wheel manufacturers were in the practice of supplying warnings to those affected by the use of their products.

Second, plaintiff provided evidence that the defendant wheel manufacturers were aware of the dangers posed by mismatch of component parts. Rather than change the design of the components themselves, they composed charts to show which products were safely interchangable and which were not. Again, there was no indication that such a chart found its way into the decedent's hands.

Third, plaintiff might submit proofs at trial that *all* three-piece rims pose risks which are "unreasonable in light of

the foreseeable injuries". *Owens* v *Allis-Chalmers Corp*, 414 Mich 413, 425; 326 NW2d 372 (1982). The OSHA petition activity was, arguably, a cooperative effort by the wheel manufacturers to create a regulatory buffer and avoid responsibility for those risks. The venture indicates a tacit understanding and mutual encouragement to refrain from taking more direct steps to prevent the danger.

Although plaintiff submitted sufficient proof to survive a motion for summary judgment on her concert of action claim against the wheel manufacturers, she did not do so with respect to AMF. There was no proof that defendant AMF acted pursuant to a common design of the other defendants prior to sale of its wheel manufacturing division in 1959. Thus, the trial court was correct as to AMF, but erred in granting summary judgment pursuant to GCR 1963, 117.2(3), in favor of the other wheel manufacturers.

Plaintiff's concert of action claim against the vehicle manufacturers is not supported by evidence showing they acted jointly with the wheel manufacturers. The purchase of wheels for use as original equipment on their vehicle is not sufficient for a finding of concert of action. "One who innocently, and carefully, does an act which furthers the tortious purpose of another is not acting in concert with him." *Prosser, supra*, p 292. Thus, the grant of summary judgment for defendant vehicle manufacturers was proper.

Leave to Amend

Plaintiff finally argues that the trial court erred by denying plaintiff leave to amend her complaint. In her proposed third amended complaint, plaintiff sought to add allegations of civil conspiracy. Plaintiff also submitted a proposed fourth amended complaint, alleging "enterprise liability".

Leave to amend a complaint "shall be freely given when justice requires". GCR 1963, 118.1; *Midura* v *Lincoln Con-*

solidated Schools, 111 Mich App 568, 562; 314 NW2d 691 (1981). The grant or denial of the motion to amend is within the discretion of the trial court. *McCalla* v *Richard Ellis*, 129 Mich App 452; 341 NW2d 525 (1983). Furthermore, summary judgment does not preclude amendment of the complaint. *Midura, supra*, p 56. However, failure to grant leave to amend is not reversible error where the pleadings as sought to be amended still fail to state a claim. *Zimmerman* v *Stahlin*, 374 Mich 93, 96; 130 NW2d 915 (1964); *Crosby* v *City of Detroit*, 123 Mich App 213, 223; 333 NW2d 557 (1983).

Conspiracy

"A conspiracy is a combination of two or more persons, by some *concerted action*, to accomplish a criminal or unlawful purpose, or to accomplish a purpose not unlawful by criminal or unlawful means." *Fenestra* v *Gulf American Land Corp*, 377 Mich 565, 593; 141 NW2d 36 (1966) (emphasis added). An allegation of civil conspiracy, standing alone, is not actionable, *Magid* v *Oak Park Racquet Club Assocs, Limited*, 84 Mich App 522, 529; 269 NW2d 661, *lv den* 404 Mich 805 (1978).

In this case, plaintiff's proposed third amended complaint contained no allegation that defendants employed unlawful methods to attain a lawful end. The group activities listed by plaintiff were entirely lawful. On the other hand, the unlawful purposes alleged were largely polemic restatements of plaintiff's concert of action allegations. Plaintiff's conspiracy claim boiled down to the allegation that the defendants "conspired to act in concert". This claim lacks meaning without an underlying tortious or criminal activity. "Concert of action" cannot be the tort or unlawful action underlying a conspiracy claim. Concert of action is itself a claim which, like conspiracy, cannot exist independently of an underlying tortious act.

Furthermore, of the specific allegations in the proposed pleadings, only one, defendants' inhibition of product indentification, approached the level of intent or agreement requisite to a conspiracy claim. Conspiracy entails "an agreement, or preconceived plan, to do an unlawful act". *Bahr* v *Miller Bros Creamery*, 365 Mich 415, 427; 112 NW2d 463 (1961). However, plaintiff's allegation of an agreement to inhibit product indentification suffers from the absence of an unlawful purpose. Plaintiff does not specify why it is unlawful to inhibit product identification in the absence of a statute requiring clear identifying marks on a product. It is not enough that plaintiff simply asserts a conclusion. *Prelesnik* v *Esquina*, 132 Mich App 341; ____ NW2d ____ (1984). Thus, the proposed pleading is legally insufficient on its face. *Fyke & Sons* v *Gunter Co*, 390 Mich 649, 660; 213 NW2d 134 (1973).

We find that the trial court did not abuse its discretion by refusing plaintiff leave to file her third amended complaint containing the conspiracy claim.

Enterprise Liability

Also, the trial court correctly denied leave to file the proposed fourth amended complaint, since enterprise liability is not recognized in Michigan. *Abel*, 418 Mich 336-337. The amended complaint would still have failed to state a claim. *Zimmerman, supra.*

This case is reversed and remanded for trial of plaintiff's concert of action claim against the wheel manufacturers, except defendant AMF. In all other respects, the judgment is affirmed.

Affirmed in part, reversed and remanded in part.

/s/ Roman S. Gribbs
/s/ Harold Hood
/s/ Richard M. Maher

APPENDIX C

Appendix C
Amended Opinion

AMENDED OPINION

STATE OF MICHIGAN
COURT OF APPEALS

THELMA COUSINEAU, Personal Representative of the Estate of MARK COUSINEAU,
Plaintiff-Appellant,

v

FORD MOTOR COMPANY, a foreign corporation, INTERNATIONAL HARVESTER COMPANY, a foreign corporation, GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation, KELSEY HAYES CORPORATION, a foreign corporation, BUDD CORPORATION, a foreign corporation, FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation, FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,
Defendants-Appellees.

[JAN 2 1985]
Amended Opinion
No. 69363

—Before: R.S. Gribbs, P.J., H. Hood and R.M. Maher, JJ.

R. S. Gribbs, J.

Plaintiff appeals as of right from an order granting summary judgment for defendants on her wrongful death claim, and a subsequent order denying her motion for reconsideration and denying her leave to amend her complaint. We affirm in part and reverse in part.

Plaintiff brought suit on October 29, 1980, alleging her son, Mark Cousineau (decedent), was killed on May 8, 1979, while repairing a truck tire mounted on a three-piece wheel. Decedent was an employee of Jaeger Brothers Construction Co, which owned several trucks, including four or five made by Ford, two by International Harvester, and at least one Fruehauf Trailer. In addition, Jaeger Brothers had numerous

tires and wheels collected from other trucks at the workplace. On May 8, 1979, decedent, who had only been employed for two days, was assigned to repair truck tires. While decedent was working on a three-piece rim, the wheel explosively disengaged, striking and killing decedent. Ronald Jaeger found a three-piece rim held together by a safety chain at the accident site. The tire was still intact and was subsequently used. The rim parts were at first kept separate, but were later mixed with the general rim stock of the business, rendering identification of the rim involved in the accident impossible.

Plaintiff sued wheel manufacturers Goodyear, Kelsey Hayes, Budd and Firestone, and vehicle manufacturers Ford and International Harvester. Plaintiff claimed decedent's injuries resulted from negligent wheel design, failure to adequately warn, and failure to provide safety devices by the wheel manufacturers. She further alleged that the defendant vehicle manufacturers negligently produced and sold vehicles which required and/or utilized multi-piece wheels. Plaintiff's complaint also contained an allegation of breach of implied warranty.

Goodyear and Kelsey Hayes moved for a more definite statement of the claim, stating that plaintiff "must be required to identify the manufacturer of the wheel and rim" involved in the accident, and "must be ordered to identify one vehicle manufacturer".

Plaintiff filed an amended complaint and added Fruehauf (vehicle manufacturer) and AMF (wheel manufacturer) as defendants. In the amended complaint, plaintiff set forth claims of alternative liability and concert of action.

All defendants except AMF and Fruehauf moved for summary judgment pursuant to GCR 1963, 117.2(1) and (3), based on plaintiff's inability to attribute the wheel in ques-

tion to a particular wheel or vehicle manufacturer. Plaintiff admitted, then as now, that she could not identify the specific manufacturer of the subject wheel or the vehicle from which it came. Attached to the wheel manufacturers' motions were affidavits of their employees, each of whom averred that defendants' products are identifiable since they are stamped with a part number and name of the manufacturer. In addition, the affiants for Firestone and Budd stated that truck rims are distinguishable from one another because of the multiplicity of rim designs. International Harvester submitted an affidavit and company records showing that the International Harvester truck owned by decedent's employer was originally equipped with two-piece rims.

After two adjournments of the motion for summary judgment to permit discovery, plaintiff filed a response to the motions. She asserted that the named defendants included "the only major manufacturers" of three-piece wheels "similar to the one that plaintiff's decedent was handling at the time of his injury". Regarding the identification issue, plaintiff argued that the manufacturer's stamp "is subject to wear, rust and corrosion" which "obliterates the identification". Plaintiff contended that truck rims made by various defendants are "very similar in size and configuration", that "there was no one design that could be identified with one specific manufacturer", and that "the wheels are essentially of a generic design". Plaintiff also stated that the manufacturer of a wheel assembly could not be determined "without the closest of examination".

In support of her alternative liability and concert of action claims, plaintiff submitted numerous documents obtained through discovery. The pertinent matter is summarized as follows:

The manufacturers of three-piece rims were made aware, through accident reports, of the problems arising from their

products, but ascribed the problems to improper "shop practices". These practices included non-compliance with the manufacturers' recommended procedures for assembly, disassembly, and maintenance and safety precautions. Firestone urged vehicle manufacturers to print warning materials in the vehicle owner manual. However, the wheel manufacturers felt that printed warnings on the rim components themselves could be ineffective since they would be covered by corrosion. In a letter to Budd dated May 11, 1976, an attorney for Firestone denigrated the effectiveness of such warnings and further stated, "I would hate to be confronted by a plaintiff's lawyer with another company's warning if my product did not have one". The same letter proposed an industry meeting and urged that the different manufacturers not take varying positions on the warning issue.

Beginning in 1976, the wheel manufacturers, through the "Rubber Manufacturers Association" and "Multipiece Rim Manufacturers" organizations, campaigned for promulgation of federal OSHA standards governing work with multi-piece rims. Their goal was "to remove all of the burden from the Wheel and Rim manufacturers" and to place responsibility for safety precautions "on the only person in practical position to discharge such responsibility, *i.e.* the employer". In April of 1980, OSHA promulgated a regulation requiring the posting of information and warnings in truck tire maintenance facilities, and the training of mechanics working with multi-piece wheels.

A Budd document dated February 2, 1976, noted the tendency of "standardization" in the truck rim industry and the dangers posed by the similarity of different products. It noted that, while some rim components manufactured by different companies were interchangeable, in some cases "mixed side rings are a definite safety hazard". The man-

ufacturers exchanged information on part interchangeability so that charts could be formulated to guide mechanics on this problem.

The defendant vehicle manufacturers purchased substantial numbers of multi-piece rims for use as original equipment. The petition to OSHA indicates that 98% of all multi-piece rims sold are used as original equipment. However, there is nothing in the record to show that vehicle manufacturers, as opposed to wheel manufacturers, were involved in the OSHA petition campaign. References to defendant wheel manufacturer AMF were also absent from plaintiff's documents, since AMF sold its truck rim subsidiary ("Cleveland Welding Division") to Budd in 1959.

At the December 10, 1982, hearing on the motion for summary judgment, plaintiff argued that summary judgment would be premature, since discovery was not complete. Counsel for Goodyear replied that no amount of discovery would disclose the identity of the manufacturer of the wheel involved in the accident. In granting the motion in favor of defendants, the trial court stated, "We're not talking about a generic product that cannot be identified". Rather, the court concluded, "This is a case where the wheel that we're talking about disappeared".

Prior to the grant of summary judgment, plaintiff moved for leave to amend her complaint. She submitted a proposed third amended complaint containing an allegation of civil conspiracy, and a fourth amended complaint which advanced a claim of "enterprise liability". *Hall* v *E I DuPont DeNemours & Co*, 314 F Supp 353 (E D NY 1972). At the hearing on the motions to amend, plaintiff conceded "there's no cause of action for conspiracy unless you've got an underlying cause". Plaintiff also requested reconsideration of the grant for summary judgment.

The trial court denied leave to amend the complaint without comment. It also denied the motion for reconsideration, distinguishing *Abel* v *Eli Lilly & Co*, 94 Mich App 59; 289 NW2d 20 (1979), *aff'd* 418 Mich 311; 343 NW2d 164 (1984).

Alternative Liability

Plaintiff first contests the granting of the summary judgment for defendants on plaintiff's alternative liability claim. She argues that the theory of alternative liability applies where a plaintiff, through no fault of his own, cannot identify the specific defendant responsible for his injuries.

The trial court did not specify the court rule underlying its grant of summary judgment. It granted summary judgment because the wheel would be identifiable if it were available, basing this conclusion on plaintiff's admission and defendant's affidavit. Since the court went beyond the pleadings in reaching its decision, the judgment will be reviewed as granted pursuant to GCR 1963, 117.2(3). Under this court rule, the nonmoving party must establish that it has a case on the law and that there are some evidentiary proofs to support its allegation as to any material fact. *Durant* v *Stahlin*, 375 Mich 628, 638; 135 NW2d 392 (1965).

Substantial guidance is provided by the recent decision in *Abel*, in which the Supreme Court expressed formal approval of the theory of alternative liability. 418 Mich 329. As noted by this Court in *Greene* v *Union Optical Center*, 95 Mich App 167, 171; 290 NW2d 111 (1980), "[i]n certain situations, a plaintiff's burden of proof may be shifted to the defendants where more than one defendant has been negligent and the plaintiff is unable to prove which of the two defendants caused his injury". Prerequisite to such a shift, plaintiff must show, first, that all defendants acted tortiously; second, that plaintiff was harmed by one of the

defendants; and, third, that plaintiff, "through no fault of [his or her] own, [is] unable to identify which actor caused the injury". *Abel*, 418 Mich 331-332. Plaintiff fastens her argument onto the latter language, ignoring the policy underlying alternative liability theory. That policy was clearly stated by the Court in the *Abel* opinion:

> "[The] reason for the exception to traditional rules is to prevent the injustice of allowing proved wrongdoers to escape liability for an injury inflicted upon an innocent plaintiff 'merely because *the nature of their conduct and the resulting harm made it difficult or impossible to prove which of them has caused the harm.*' " 418 Mich 327, *citing* 2 Restatement Torts, 2nd, §433B, Comment f, p 446 (emphasis added).

In *Abel*, the plaintiffs alleged they were harmed by their consumption of synthetic estrogens. 418 Mich 318. Their inability to identify the specific manufacturer which caused the harm resulted from the inherent nature of the product. Once ingested, the medication was irretrievable for use as evidence. Also, plaintiffs alleged that defendants used "a generic marketing scheme to promote the product". 418 Mich 336. In its decision in *Abel*, this Court noted the difficulties posed by the number of defendants and by the length of time between the ingestion of the allegedly defective drug and the appearance of the damages. 94 Mich App 76.

In this case, however, the wheel assembly which gave rise to the injury did not disappear, nor was its source rendered unidentifiable by the defendants' conduct. It remained available for use as evidence and was, in fact, kept separate from the wheel inventory of decedent's employer for quite some time. Plaintiff argues that the similarity of three-piece rims renders them unidentifiable, but admits the wheel could be identified if it were available. The interchange of parts

between wheel rim manufacturers indicates only that more than one manufacturer may have made the components in question, not that the parts could not be identified. Plaintiff further contends that the identifying stamp on the product was probably obscured by dirt and corrosion, so the decedent could not read it. This is sheer speculation, given the unavailability of the evidence.

As to the vehicle manufacturers, plaintiff's claim of alternative liability is insufficient as well. Trucks are not generic products posing identification difficulties. Plaintiff admits she cannot identify the particular vehicle which was equipped with the subject wheel assembly. In addition, she cannot prove that the wheel was used as original equipment on any of the trucks at decedent's work place. The defendant vehicle manufacturers are not in the business of making three-piece rims. Though a vehicle manufacturer may be held liable for damages caused by defective component parts supplied by another entity, *Comstock* v *General Motors Corp*, 358 Mich 163; 99 NW2d 627 (1959), this duty has not yet been extended to component parts added to a vehicle subsequent to distribution. Assuming the existence of a defect, plaintiff must "trace that defect in the hands" of the defendant. *Caldwell* v *Fox*, 394 Mich 401, 410; 231 NW2d 46 (1975). "The threshold requirement of any product liability action is identification of the injury-causing product and its manufacturer." *Abel*, 418 Mich 327. Failure of a component not supplied by the manufacturer does not give rise to liability on the manufacturer's part. *Antcliff* v *State Employees Credit Union*, 95 Mich App 224, 231-233; 290 NW2d 420 (1980), *aff'd* 414 Mich 624; 327 NW2d 814 (1982).

Concert of Action

Plaintiff next argues that the trial court erred in granting summary judgment in favor of defendants on plaintiff's concert of action claim. Plaintiff argues that she submitted doc-

umentary evidence of the joint efforts and conscious parallelism in the wheel industry, and that defendants acted to direct government inquiry away from themselves.

Because the trial court relied on affidavits outside the pleadings in granting summary judgment, we again review the summary judgment as one granted pursuant to GCR 1963, 117.2(3). A motion for summary judgment pursuant to this court rule should not be granted unless it is impossible for the claim asserted to be supported by evidence at trial. *Rizzo* v *Kretschmer,* 389 Mich 363; 207 NW2d 316 (1973). The data which the trial court considers in ruling on the motion are "affidavits, together with the pleadings, depositions, admissions and documentary evidence then filed in the action or submitted by the parties". GCR 1963, 117.3; *Rizzo, supra,* p 373.

A plaintiff may proceed on the theory of concert of action if he or she can prove "that all defendants acted tortiously pursuant to a common design". *Abel,* 418 Mich 338. "Express agreement is not necessary, and all that is required is that there be a tacit understanding." Prosser, Torts (4th ed), §46, p 292. "A concert of action case does not require that the plaintiff be unable to identify the specific defendant who caused his injury." *Abel,* 418 Mich 338. Rather, each defendant "is jointly and severally liable for the entire amount of damages, although he may be entitled to contribution from his fellow tort feasors." *Abel,* 94 Mich App 73. "Even if defendant caused no harm himself, he is liable for the harm caused by his fellows because all acted jointly." 94 Mich App 73. ". . . [T]o state a cause of action, a plaintiff need only allege that the defendants were jointly engaged in tortious activity as a result of which the plaintiff was harmed." *Abel,* 418 Mich 338, citing *Walters* v *Sargent,* 390 Mich 775; 210 NW2d 315 (1973), *adopting partial dissent* in *Walters* v *Sargent,* 46 Mich App 379, 384; 208 NW2d 207 (1973).

In this case, the trial court did not give this claim the individual consideration it deserved, but disposed of it on the same basis as the alternative liability claim—failure to identify the source of the wheel. As noted above, the identification problem is not a *sine qua non* of a concert of action claim. Each defendant who acted jointly and tortiously is liable, even though his conduct was not the direct cause of the injury. Thus, in the context of this case, we hold that it does not matter if the party causing the injury in fact is not joined in the concert of action claim, since all those acting in concert, named and unnamed defendants, are jointly and *severally* liable for the entire harm. *Abel*, 94 Mich App 73.[1]

As discussed below, plaintiff is entitled to recover from defendant wheel manufacturers on a concert of action theory if she can prove that they acted tortiously pursuant to a common design and that such action proximately caused the injury. She can prove tortious activity pursuant to a common design if she establishes that the wheel manufacturers, acting jointly, breached their duty to warn of the danger posed by their products (negligence or breach of implied warranty theory). See *Smith* v *E R Squibb & Sons*, 405 Mich 79; 273 NW2d 476 (1979). She can also recover if she can prove that the wheel manufacturers, acting jointly, manufactured/marketed an unreasonably dangerous product (negligence or negligent design theory). See *Owens* v *Allis-Chalmers Corp*, 414 Mich 413; 326 NW2d 327 (1982); *Moning* v *Alfono*, 400 Mich 425; 254 NW2d 759 (1977). A showing by plaintiff that there is some evidence supporting these claims would preclude summary judgment. *Rizzo, supra.*

---

[1]Although each defendant tortfeasor who acts in concert is jointly and severally liable, the plaintiff may join others in the suit who also engaged in such conduct, GCR 1963, 206.1, and defendants may seek contribution after judgment. MCL 600.2925a; MSA 27A.2925(1); *Abel*, 94 Mich App 73. The defendant may also implead nonjoined tortfeasors as third party defendants and seek contribution. GCR 1963, 204.

Plaintiff made a sufficient showing that defendant wheel manufacturers acted jointly in failing to warn of a danger in their products to survive their summary judgment motion. Plaintiff submitted an affidavit and other data to show that the wheels and the mismatch of wheel components posed a danger, and that the defendants were aware of the numerous incidences of death and injury resulting from wheel explosions. The record does not establish that plaintiff had any warning whatsoever from the wheel manufacturers, or that any of these manufacturers were in the practice of supplying warnings to those affected by the use of their products. Although defendants argue that their products are safe when used properly, and that they took adequate measures to warn those working with the wheels, these arguments relating to the reasonableness of their conduct are for the trier of fact. *Smith, supra,* pp 88-90; *Dunn* v *Lederle Laboratories,* 121 Mich App 73, 79-80; 328 NW2d 576 (1982), *lv den* 417 Mich 1098 (1983). By engaging in the joint OSHA petition campaign, the wheel manufacturers arguably proposed a government role to relieve themselves of their duty to warn those working with the multi-piece rims.[2]

Plaintiff provided documentation showing that the multi-piece rims manufactured/marketed by the wheel manufacturers were dangerous, and that the manufacturers knew of the danger posed by their products and the mismatch of components of their products. Plaintiff might submit proofs at trial that all three-piece rims posed risks "unreasonable in light of the foreseeable injuries". *Owens, supra,* p 425. Plaintiff also showed that, rather than change the design of

[2]Defendants are correct insofar as the OSHA petition campaign cannot be viewed as tortious activity. Nonetheless, the same activity indicates an awareness of the wheel industry as a whole of the gravity of the problem and could be interpreted as a cooperative effort to avoid responsibility for the risks posed by multi-piece rims.

the rims or the rim components, the wheel manufacturers acted jointly in exchanging information and composing charts to show which products were safely interchangeable and which were not. This conduct, as well as the OSHA petition campaign, could indicate a tacit understanding and mutual encouragement to refrain from taking more reasonable steps to prevent the danger posed by the multi-piece wheel rims.

In addition, plaintiff would have to establish that the above alleged tortious activity engaged in by the wheel manufacturers proximately caused the injury. Although the explosion of the multi-piece rim caused decedent's death in fact, the question of proximate cause is whether or not the conduct of the wheel manufacturers was so significant and important a cause that they should be legally responsible. *Moning, supra,* p 438. Although proximate cause is a question of law where there are no factual disputes, *Moning, supra,* pp 438-439, in a negligence action (which is essentially the underlying tortious activity of plaintiff's concert of action claim), any doubts about the relationship between cause and effect should be resolved by the trier of fact. *Fiser* v *City of Ann Arbor,* 417 Mich 461, 475; 339 NW2d 413 (1983). Summary judgment can only be granted if reasonable persons could not differ in finding that the wheel manufacturers' conduct was not a proximate cause of the injury. *Fiser, supra,* p 470; *Davis* v *Thornton,* 384 Mich 138, 142-146; 180 NW2d 11 (1970). Because summary judgment for defendant wheel manufacturers was not granted on this ground, we leave this question for the trial court.

Although plaintiff made a sufficient showing to survive a motion for summary judgment on her concert of action claim against the wheel manufacturers, she did not do so with respect to AMF. There was no indication that defendant AMF acted pursuant to a common design of the other

defendants prior to sale of its wheel manufacturing division in 1959. Thus, the trial court was correct as to AMF, but erred in granting summary judgment pursuant to GCR 1963, 117.2(3), in favor of the other wheel manufacturers.

Plaintiff's concert of action claim against the vehicle manufacturers is not supported by any showing that they acted jointly with the wheel manufacturers. The purchase of wheels for use as original equipment on their vehicle is not sufficient for a finding of concert of action. "One who innocently, and carefully, does an act which furthers the tortious purpose of another is not acting in concert with him." *Prosser, supra,* p 292. Thus, the grant of summary judgment for defendant vehicle manufacturers was proper.

Leave to Amend

Plaintiff finally argues that the trial court erred by denying plaintiff leave to amend her complaint. In her proposed third amended complaint, plaintiff sought to add allegations of civil conspiracy. Plaintiff also submitted a proposed fourth amended complaint, alleging "enterprise liability".

Leave to amend a complaint "shall be freely given when justice requires". GCR 1963, 118.1; *Midura* v *Lincoln Consolidated Schools,* 111 Mich App 558, 562; 314 NW2d 691 (1981). The grant or denial of the motion to amend is within the discretion of the trial court. *McCalla* v *Richard Ellis,* 129 Mich App 452; 341 NW2d 525 (1983). Furthermore, summary judgment does not preclude amendment of the complaint. *Midura, supra,* p 56. However, failure to grant leave to amend is not reversible error where the pleadings as sought to be amended still fail to state a claim. *Zimmerman* v *Stahlin,* 374 Mich 93, 96; 130 NW2d 915 (1964); *Crosby* v *City of Detroit,* 123 Mich App 213, 223; 333 NW2d 557 (1983).

Appendix C
Amended Opinion

Conspiracy

"A conspiracy is a combination of two or more persons, by some *concerted action*, to accomplish a criminal or unlawful purpose, or to accomplish a purpose not unlawful by criminal or unlawful means." *Fenestra* v *Gulf American Land Corp*, 377 Mich 565, 593; 141 NW2d 36 (1966) (emphasis added). An allegation of civil conspiracy, standing alone, is not actionable; *Magid* v *Oak Park Racquet Club Assocs, Limited*, 84 Mich App 522, 529; 269 NW2d 661, *lv den* 404 Mich 805 (1978).

In this case, plaintiff's proposed third amended complaint contained no allegation that defendants employed unlawful methods to attain a lawful end. The group activities listed by plaintiff were entirely lawful. On the other hand, the unlawful purposes alleged were largely polemic restatements of plaintiff's concert of action allegations. Plaintiff's conspiracy claim boiled down to the allegation that the defendants "conspired to act in concert". This claim lacks meaning without an underlying tortious or ciminal activity. "Concert of action" cannot be the tort or unlawful action underlying a conspiracy claim. Concert of action is itself a claim which, like conspiracy, cannot exist independently of an underlying tortious act.

Furthermore, of the specific allegations in the proposed pleadings, only one, defendants' inhibition of product identification, approached the level of intent or agreement requisite to a conspiracy claim. Conspiracy entails "an agreement, or preconceived plan, to do an unlawful act". *Bahr* v *Miller Bros Creamery*, 365 Mich 415, 427; 112 NW2d 463 (1961). However, plaintiff's allegation of an agreement to inhibit product identification suffers from the absence of an unlawful purpose. Plaintiff does not specify why it is unlawful to inhibit product identification in the absence of a statute requiring clear identifying marks on a product. It is

not enough that plaintiff simply asserts a conclusion. *Prelesnik* v *Esquina*, 132 Mich App 341; 347 NW2d 226 (1984). Thus, the proposed pleading is legally insufficient on its face. *Fyke & Sons* v *Gunter Co*, 390 Mich 649, 660; 213 NW2d 134 (1973).

We find that the trial court did not abuse its discretion by refusing plaintiff leave to file her third amended complaint containing the conspiracy claim.

Enterprise Liability

Also, the trial court correctly denied leave to file the proposed fourth amended complaint, since enterprise liability is not recognized in Michigan. *Abel*, 418 Mich 336-337. The amended complaint would still have failed to state a claim. *Zimmerman, supra*.

This case is reversed and remanded for trial of plaintiff's concert of action claim against the wheel manufacturers, except defendant AMF. In all other respects, the judgment is affirmed.

Affirmed in part, reversed and remanded in part.

/s/ Roman S. Gribbs
/s/ Harold Hood
/s/ Richard M. Maher

APPENDIX D

ORDER

AT A SESSION OF THE SUPREME COURT OF THE STATE OF MICHIGAN, Held at the Supreme Court Room, in the City of Lansing, on the 24th day of June in the year of our Lord one thousand nine hundred and eighty-five.

Present the Honorable
G. MENNEN WILLIAMS,
Chief Justice
CHARLES L. LEVIN,
JAMES L. RYAN,
75652 JAMES H. BRICKLEY,
75653 MICHAEL F. CAVANAGH,
75734 PATRICIA J. BOYLE,
DOROTHY COMSTOCK RILEY,
Associate Justices

THELMA COUSINEAU, Personal Representative of the Estate of MARK COUSINEAU,
Plaintiff-Appellee,

v

FORD MOTOR COMPANY, a foreign corporation, INTERNATIONAL HARVESTER COMPANY, a foreign corporation, KELSEY HAYES CORPORATION, a foreign corporation, FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,
Defendants,
and
GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation, THE BUDD COMPANY, a foreign corporation, and FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation,
Defendants-Appellants.

SC: 75652, 75653, 75734
COA: 69363
LC: 80-039-185-NP

Appendix D
Order

On order of the Court, the applications for leave to appeal are considered, and they are DENIED, because we are not persuaded that the questions presented should now be reviewed by this Court.

STATE OF MICHIGAN — ss.

I, CORBIN R. DAVIS, Clerk of the Supreme Court of the State of Michigan, do hereby certify that the foregoing is a true and correct copy of an order entered in said court in said cause; that I have compared the same with the original, and that it is a true transcript therefrom, and the whole of said original order.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Supreme Court at Lansing this 24th day of June in the year of our Lord one thousand nine hundred and eighty-five.

(s) Jacqueline B. MacKinnon
Deputy Clerk

APPENDIX E

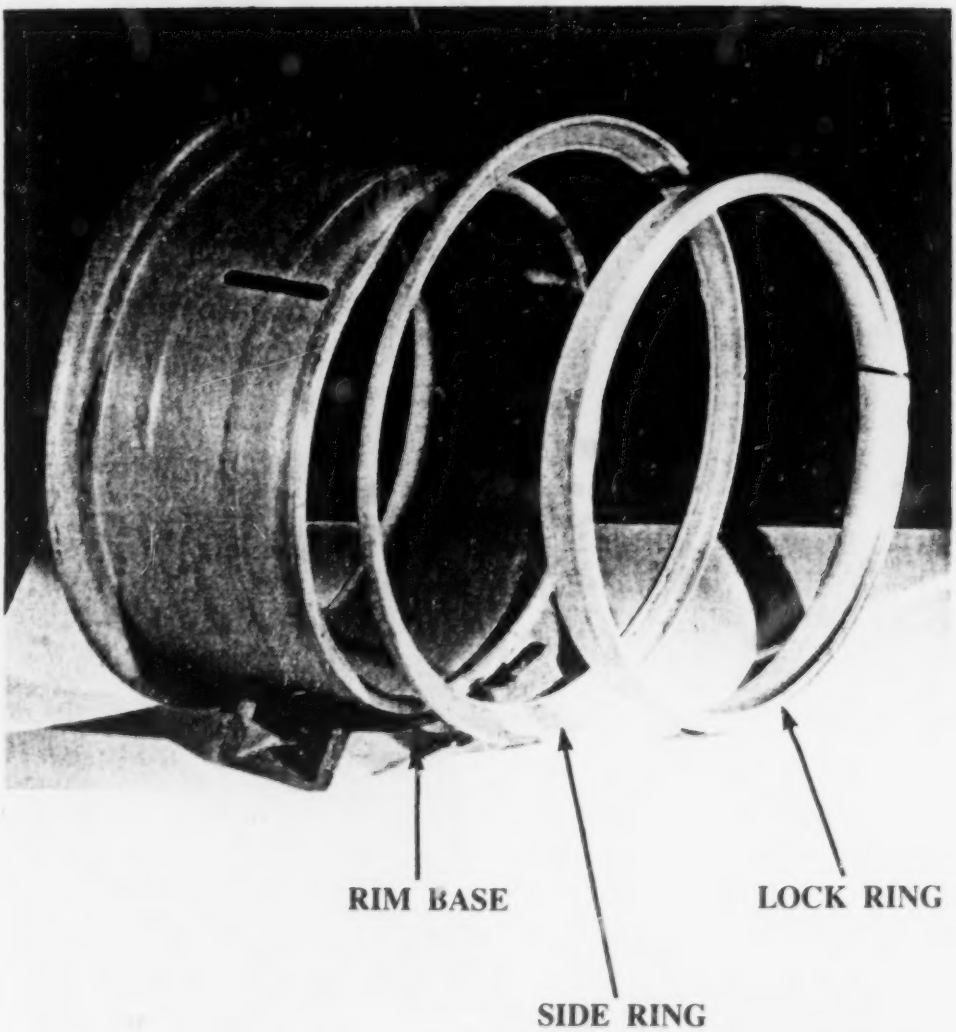

PHOTO A

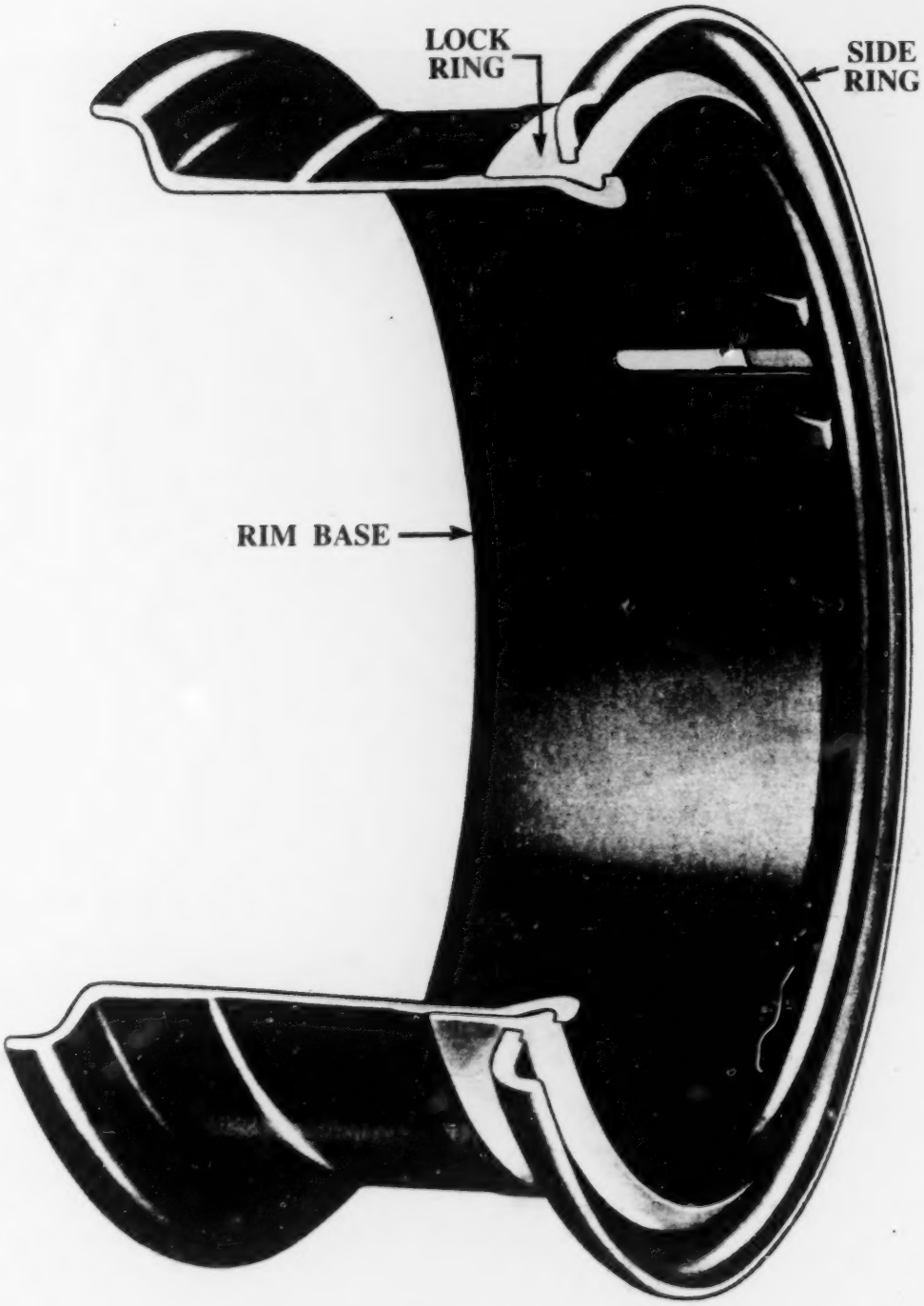

PHOTO B

APPENDIX F

federal register

Tuesday
January 29, 1980

Part IV

Department of Labor

Occupational Safety and Health Administration

Servicing Multi-Piece Rim Wheels; Procedures

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

FEDERAL REGISTER — RULES AND REGULATIONS
(JANUARY 29, 1980)

DEPARTMENT OF LABOR
Occupational Safety and Health
Administration
29 CFR Part 1910
Servicing Multi-Piece Rim Wheels
AGENCY: Occupational Safety and Health Administration, U.S. Department of Labor.

ACTION: Final standard.

SUMMARY: By this final standard the Occupational Safety and Health Administration (OSHA) establishes procedures for the servicing of multi-piece rim wheels fitted on vehicles used on and off highways. Multi-piece rim wheels consist of two or more detachable rim components, one of which is a side or locking ring designed to hold the tire on the rim base when the tire is inflated. These wheels are used on motor vehicles, such as trucks, trailers, buses and motor homes, for either on-highway or off-highway usage. The major hazard in servicing multi-piece rim wheels is the possibility of an employee being struck by a wheel component which has been thrown from an inflated wheel during an unintended explosive separation. This standard includes requirements for training of all tire servicing employees, establishment of a safe practice procedure for servicing multi-piece rim wheels, use of restraining devices and criteria for interchangeability of rim components.

EFFECTIVE DATE: This standard will become effective April 28, 1980.

FOR FURTHER INFORMATION CONTACT: William Simms, Occupational Safety and Health Administration, Room N-3106, U.S. Department of Labor, Washington, D.C. 20210, Telephone: (202) 523-8126.

SUPPLEMENTARY INFORMATION: For additional copies of this regulation contact: OSHA Office of Publications, U.S. Department of Labor, Room S-1212, Washington, D.C. 20210, Telephone: 202-523-8677.

A. Background

1. Multi-piece Rims

Multi-piece rims are used in conjunction with tube-type tires, most frequently on trucks, tractors, buses, trailers, campers and off-highway type vehicles. Multi-piece rims consist of two or more components which, when assembled and the tire is inflated, are held together by the force of the air pressure in the tire. Multi-piece rims may consist of up to five or six components on large wheels for off-the-road vehicles.

A multi-piece rim consists of a rim base, the largest part of the metal structure supporting the tire, and one or more detachable side rings serving as a flange to keep the inflated tire on the rim base. The rim base, side ring, lock rings, and tire are collectively referred to as a "wheel."

For multi-piece rims, the rim base and the side or locking rings are the primary components which support the tire's bead. This is referred to as a split side ring in two piece assemblies and a solid side ring and split lock ring in three piece assemblies. In the case of two piece assemblies, the circumferentially continuous outer small component is termed a side ring. (See Society of Automotive Engineers, SAE J393, which defined rim terminology.)

There are basically four multi-piece wheel designs. In the first design (exemplified by Goodyear's "KW" type rim) the rim base is split radially and the side ring is circumferentially continuous. In the second design (exemplified by Firestone's, Kelsey's and Budd's "RH5°" and "KL" rims) both the rim base and the side ring are circumferentially

continuous. The third type rim (exemplified by Goodyear's "LW" type rim) is a two piece assembly composed of a demountable rim base and a split side ring. The fourth design in the larger sizes (exemplified by Firestone's "Commander 5°" rim) is a three piece assembly composed of rim base, a side and a lock ring.

2. History of the Regulation

OSHA concern for developing a standard to protect employees engaged in servicing multi-piece rim wheels was initiated by an internal report of "Hazards Not Covered by a Standard" from OSHA field personnel in the Louisville, Kentucky office. This was followed by a similar report from OSHA field personnel in Columbus, Ohio.

Since these reports were received, OSHA has monitored reports of accidents and injuries related to multi-piece rim wheels. In addition, petitions for the promulgation of a standard relating to the servicing of multi-piece rim wheels were submitted to OSHA in 1976 by the Rubber Manufacturers Association (RMA) and the Firestone Tire and Rubber Company. The National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation (DOT), stated its support for the promulgation of such a standard and has, by written request, urged OSHA to regulate the servicing of multi-piece rim wheels in the workplace.

NHTSA is currently investigating the safety hazards associated with the use of multi-piece rims. It issued an advance notice of proposed rulemaking on March 5, 1979 (44 FR 12072) to determine whether to require certain performance levels for tire and rim component retention and whether to ban the production of multi-piece rims. NHTSA's actions are not directed at working conditions of employees and therefore are not an exercise of statutory authority by a federal agency under Section 4(b)(1) of the

Occupational Safety and Health Act which would preempt action by OSHA.

NHTSA does not intend that its regulations displace OSHA's coverage of tire servicing personnel. NHTSA has articulated this intent by that agency's recognition that numerous accidents occur because of improper servicing, coupled with NHTSA's formal request that OSHA promulgate a standard for servicing of multi-piece rims in the workplace [Ex. 2: (30-17)].

On April 24, 1979, after a review of the available data, OSHA published a proposed permanent standard for the servicing of multi-piece rim wheels (44 FR 24252). The proposal contained requirements for training of all tire servicing employees, establishment of safe operating procedures for servicing multi-piece rim wheels, use of restraining devices and criteria for serviceability and interchangeability of rim components. A period for receipt of written comments on the proposed standard and issues raised therein was established, extending through July 6, 1979.

To assist participants in preparing their written comments and to give interested persons an opportunity to obtain clarification of the proposal, OSHA scheduled a public meeting for June 19, 1979, more than two weeks prior to the end of the comment period. During the meeting several participants submitted further comments on the proposed standard. A transcript of the meeting was prepared and is part of the record of this rulemaking.

Fifty-nine written comments were received by the end of the comment period. Most of the comments favored the adoption of the proposed standard in principle. A number of comments offered recommendations for minor modification of certain of the provisions of the proposal. There were no requests for a hearing under section 6(b)(3) of the OSHA Act.

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

A Regulatory Assessment was prepared in accordance with Executive Order 12044 (43 FR 12661, March 24, 1978), and was made available to the public, as noted in the preamble to the proposed standard (44 FR 24246). (See Section D, Regulatory Assessment, below). Opportunity was given to interested persons to comment on the subject matter and contents of that report.

This final standard on servicing of multi-piece rim wheels is based on a full consideration of the entire record of the rulemaking proceeding including the materials relied on in the proposal, the transcript of the public meeting, and all written comments and exhibits received. All materials in the record are available for public review and copying at the OSHA Docket Office, Room S6212, U.S. Department of Labor, 3rd Street and Constitution Avenue, NW., Washington, D.C. 20210, telephone (202) 523-7894.

3. Hazards

Although accidents may occur at any time when handling multi-piece rims, the primary danger arises during the process of inflating the tire. An inflated tire is a high pressure vessel; for example, a popular size 10.00 × 20 tire when inflated at 105 pounds per square inch gauge (psig) (7.38 kg/cm^2) creates a force in excess of 40,000 pounds (18,144 kg) against the rim flange. This force, according to test data provided by the Insurance Institute for Highway Safety (IIHS), accelerated a locking ring to 130 mph (209 km/hr) and raised a 215 pound (97.5 kg) anthropomorphic dummy 10 feet (3.05 m) upward from a wheel resting horizontally on the pavement.

The principal hazard in mounting, installing, storing, and handling multi-piece rim wheels arises when they are assembled together and the unit is inflated to its required pressure or beyond. If a component is not set or seated in

its proper position in relation to the other components, the rings or the removable flanges may separate violently from the assembly. Such separation may cause lock rings, or other components to be hurled violently through the air, with the likelihood of striking a person and causing serious injury or death. Such accidents are most likely to occur while a tire that has just been mounted on a rim is being inflated or immediately after it has been inflated.

Accidents that have caused the greatest number of injuries appear to have been due to improper mounting, use of damaged parts, or mismatch of component parts. Accidents may also occur because of overinflating the tire or striking the lock rings or rims with a hammer. Many accidents appear to have resulted from a lack of knowledge on the part of the employee servicing the tire as to proper handling techniques and the dangers involved in servicing multi-piece rim wheels. In written comments, the State of North Carolina said, "A large portion of the accidents, injuries, and fatalities related to multi-piece rim wheels are traceable to untrained, inadequately trained, or improperly trained personnel." [Ex. 3: (21)]

4. Accident Data

Incidents which result in a serious or fatal injury to a mechanic engaged in servicing a multi-piece rim wheel often are only reported locally. Therefore, the data available is believed to be limited to only a portion of the total injuries and fatalities which occur. The May 1974 issue of "Learn and Live," a monthly publication of the Industrial Safety Division of the Florida Department of Commerce, reported that the fatality toll in Florida from servicing multi-piece rims had risen to eleven over a period of ten and one half years. By the end of 1978, the toll had risen to fifteen.

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

On September 28, 1973, NHTSA's Office of Defects Investigation issued a report on its investigation of multi-piece rim failures (ODI Case No. 215). This report covered 29 accidents due to improper assembly procedures that resulted in serious injury or a fatality, involving KB and KW type wheels. The report indicated that many of the shop personnel who worked with the multi-piece rims in question may not have been aware of all the safety precautions to be followed when mounting or demounting these wheels.

On December 21, 1973, NHTSA issued a report on its investigation of RH5° wheel failures (ODI Case No. 150) that included investigation of 81 incidents which resulted in serious injury or fatality to employees engaged in servicing these wheels. This report recommended several courses of action which included discontinuance of the manufacture of this type of wheel; development and distribution of a poster illustrating the safety precautions to be used during multi-piece rim wheel assembly; and development and distribution of a matching chart showing the compatibility of parts of multi-piece rim wheels produced by different manufacturers. (NHTSA developed a safety precautions chart, and multi-piece rim wheel matching chart, after their report was issued. The contents of these charts are utilized by OSHA in the training and servicing provisions of this final standard.)

In addition to the pre-1973 accident reports supplied in the NHTSA investigations OSHA's Office of Management Data Systems and Statistical Coordination received reports of 10 fatal accidents involving servicing of multi-piece rim wheels which occurred during 1976 and 1977. These data were compiled from workers' compensation reports from 10 states.

Data supplied by RMA which are listed in Table 3-2 of the Regulatory Assessment indicate that 13% of all multi-piece rim accidents result in fatalities, 63% result in injuries and property damage, and no-injury accidents constitute the

remaining 24% of the 165 cases reported for the years 1972-1975. Similarly, IIHS data indicate that fatalities constitute 18%, injuries 67% and property damage and no-injury accidents represent the remaining 15% of the 241 cases reported for the years 1968-1977. Neither data base is considered totally representative of the nation because the actual number of split-rim accidents is not ascertainable, nor can the annual frequency of occurrence be predicted with a high degree of accuracy. Since the reported accidents do not represent a statistical sampling, but are only cases known to each organization, these numbers are considered to represent a lower limit of accident experience.

A review of accident descriptions provided by IIHS indicates that 53% of accidents under OSHA jurisdiction have occurred while the tire was being mounted/demounted, 31% while the wheel was being installed/removed and the remainder (16%) when the wheel was being handled or moved. Five of the 241 accidents that were evaluated, occurred while a safety cage or restraint was being used. A breakdown of the 16% category of accidents which occurred during handling indicates that numerous accidents occurred while moving an inflated tire in the service area, measuring tire pressure, removing the valve core or simply while an inflated tire was stored at rest. In some cases, multi-piece wheels being serviced exploded and either injured or killed experienced tire service personnel. However, it would appear that in many cases, these employees had never received any training, nor had they ever been informed of the inherent hazards and the safety practices to be followed.

Although the data presented may not be statistically representative of all multi-piece wheel accidents, they provide an insight into the relative frequency of fatalities and injuries. Injuries have not been classified into categories of severity, but an examination of IIHS accident reports sug-

gests the existence of a very high proportion of fatalities and severe injuries, including many permanent disabilities.

Until now, there have been no specific OSHA general industry standards that apply to the handling and servicing of multi-piece rims. In the construction safety and health standards, § 1926.600(a) requires that a tire rack, cage, or equivalent protection be provided and used when inflating tires on multi-piece rims. Section 1926.600 is not affected by the standard being published today.

B. Summary and Explanation of the Standard and Major Issues

The following section discusses the individual requirements of the multi-piece rim wheel standard, including analysis of the major issues raised during the proceeding, the record evidence and the policy considerations underlying the various provisions of the standard.

The final standard sets requirements for training of all tire servicing employees, safe practice and procedures and the use of restraining devices. These and other portions of the standard, including those on criteria for interchangeability of rim components have been revised and clarified from the proposal as described in detail below.

The language of the standard essentially follows that of the proposal except for revisions based on OSHA's review of the entire rulemaking record, including written comments and testimony submitted at the public meeting.

Virtually all persons who participated in the rulemaking by submitting comments and/or appearing at the public meeting agreed with OSHA's determination that the principal causes of accidents involving multi-piece rim wheel separations could be eliminated by proper training of employees, availability and utilization of restraining devices and necessary tools and equipment and adherence to recommended safe procedures.

(1) *Scope-paragraph (a).* This standard is intended primarily to provide protection to employees engaged in servicing of multi-piece rim wheels used on trucks, buses or other large vehicles. It applies also to the servicing and maintenance of all other multi-piece rim wheels, wherever they are used. Workplaces covered by the construction industry standards are subject to § 1926.600, and are not intended to be covered by the general industry standard published today.

The proposed standard would only have covered the servicing of rims 16 inches or greater in diameter. However, the rulemaking record clearly indicates that the danger of an unintended explosive separation of a multi-piece rim wheel exists for rims less than 16 inches as well.

The Michigan Department of Labor reported one fatality and three severe injuries which occurred when multi-piece rim wheels less than 16 inches (40.6 cm) in diameter were being serviced. [Ex. 3:(8)]. In addition, IIHS stated in its comments regarding the scope of the proposal that

> the concept that smaller multipiece [sic] rims are somewhat different, is generally not true. All multipiece [sic] rims depend upon the same balance of interlocking metal components. [Ex. 3: (23)]

Comments were submitted documenting the general use of smaller, multi-piece rim wheels on trailer which transport cars, livestock and furniture, as well as "bob-tailed" tractors used to haul mobile homes. [Ex. 3:(13)]. Several manufactures, including The National Wheel and Rim Association and Firestone Tire and Rubber Company, also recommended changes in the scope of the standard, based on the fact that 15 inch (38.1 cm) rims are used in significant numbers. [Ex. 3:(18); 3:(33); 3:(39)] Accordingly, the standard's scope has been modified to apply to the servicing of all multi-piece rim wheels without regard to their size, as along as they contain a lock ring or side ring. This provision reflects the deter-

mination that it is the assembly of multiple pieces and not the size of the wheel which is relevant to the explosion hazard.

Several comments recommended that the scope of the standard should include aircraft wheels, which consist of more than one piece. [Ex. 3:(5); 3:(6)] However, a review of manufactures' descriptive rim and wheel material and field visits to commercial and military airports have revealed that aircraft wheels are not similar to the "multi-piece rim wheels" covered by the standard. Aircraft wheels consist of a two-piece disk design with mounting bolts to hold the two halves together. [Ex. 3:(37)] They do not have locking rings, and do not use the air pressure of the tire to hold the rim components together. In addition, different tools and procedures are required for bolted wheels. Therefore, bolted wheels do not present the type or degree of explosion hazard addressed by this standard. [Ex. 3:(44)] This standard will only cover multi-piece rim wheels containing a lock ring, or side ring and base. In order to clarify the scope in this regard the proposed definition of multi-piece rim wheels is being revised in the final standard. (See discussion of paragraph (b) "Definitions", below).

(2) *Definitions-paragraph (b).* The definitions are stated as commonly used in the tire industry; however, some have been modified slightly to accommodate the regulatory nature of this standard.

Throughout the relevant literature, the term "mounting" has two different meanings. In one case, "mounting" a tire means assembling a tire with an appropriate rim and tube, while in the other case it means attaching a wheel to an axle. A review of nationwide accident reports indicates that the word "mounting" is used in both senses throughout the United States. For the purposes of this standard, OSHA uses the terms "mount and demount a tire" to mean the assembly and disassembly of a wheel and its components.

"Install and remove a wheel" means to attach and remove an assembled wheel to/from a vehicle axle hub. This choice of definitions lessens the possibility of confusion associated with the "demounting a tire" vs. "dismounting a wheel" usage, while still conforming to NHSTA and tire manufacturer terminology. The term "dismounting" is not used in this standard, but is replaced with "removal."

In order to clarify the scope of the standard, as noted above, the proposed definition of a multi-piece rim wheel is being changed. As defined in the proposal, a multi-piece rim wheel is a vehicle wheel rim consisting of two or more parts, at least one of which is detachable, designed to hold the tire in place on the rim. To clarify that this standard does not cover the types of multi-piece rim wheels that are bolted together, [Ex. 3:(4); 3:(37)], this definition is revised in the final standard to read as follows:

> "Multi-piece rim" means a vehicle wheel rim consisting of two or more parts, one of which is a side or locking ring designed to hold the tire on the rim by interlocking components when the tube is inflated, regardless of the sizes of the component parts.

The proposed definition of a "rim manual" is being clarified and amended to provide that any manual which contains appropriate instructions and safety precautions from the manufacturer or other qualified organization is acceptable as a rim manual. OSHA agrees with the comments which stated that the definition in the proposal was too restrictive, since it might have been interpreted as being limited to a publication supplied directly by the manufacturer.

The term "charts" is used in the final standard instead of the term "wall charts" because of the many formats in which the necessary information may be found. In addition, because multi-piece rim wheels are serviced frequently at

remote locations away from the employer's premises, the use of the term "wall charts" might be confusing in instances where there are no "walls" in the service area.

The proposed definition of "wall charts" was limited to the DOT wall charts on matching rim components and on safety precautions, and other publications containing the same instructions as these two charts. The definition is revised in the final standard to clarify that the term includes all publications, whether or not published by DOT, which contain at a minimum the same instructions as the DOT publications, for the type of multi-piece rim wheel being serviced.

Several comments stated that the proposed definition of the "service area" was too narrow, in that it did not take into account the remote locations (away from the employer's premises) where multi-piece rim wheels are routinely and frequently serviced. OSHA recognizes that the servicing activity at these remote locations is at least as hazardous as at the employer's premises, that the operations conducted are essentially the same, and that the same training, tools and procedures are applicable. In view of the above, the final standard has been modified to define a service area as any location where a multi-piece rim wheel is serviced. OSHA recognizes that this change in the definition of service area may create a greater demand for portable restraining devices. However, such devices are readily available. [Ex. 2:(3); 3:(21); 3:(59)] (See Regulatory Assessment pp. 19-23.)

The term "trajectory path" has been redefined. A review of the accident reports has revealed that because of the nature of an explosive separation of a wheel, the direction of the separated rim components is not entirely predictable. Therefore, the proposed definition has been changed to indicate that the trajectory is the potential path a component may be expected to follow and that it may deviate from the

perpendicular. Likewise Appendix A has been changed to reflect possible trajectories but in no way is meant to limit the trajectory to those illustrated.

The term "trajectory path" is being revised to "trajectory," since the added word "path" would be redundant.

(3) *Training—paragraph (c).* The standard requires every employee who services multi-piece rim wheels to be trained by the employer in proper techniques and practices applicable to the type of wheel being serviced. Training is required because many tire mechanics do not understand the potential danger involved in servicing multi-piece rim wheels, and because of the need to remind employees of the hazards and appropriate measures. The need for training is substantiated by a review of accident cases in which there appears to be a lack of knowledge of safe operating practices.

Firestone Tire and Rubber Company said, "In our view, training is the only method to ensure the safety of those who will be working with truck and bus tires and rims." [Ex. 3:(33)]

OSHA considers that training, in conjunction with the use of a restraining device and clip-on chuck, can contribute significantly to a reduction of accidents.

This standard does not specify the details of the training program, but simply requires the development and maintenance of employee proficiency in given elements of servicing. A mechanic's level of proficiency can be established by demonstration of his familiarity with and ability to use the information contained in the charts and in this standard.

The training provisions of the standard are stated in performance language, allowing the employer flexibility in complying with the requirement for training. This places the burden of providing adequate training and the responsibility for evaluating the employee's proficiency solely on the employer. Employees are adequately trained if they have

thorough knowledge of and can apply the information contained in the charts and in this standard.

The proposal contained no explicit requirement that an employee who demonstrates his ability to service multi-piece rim wheels must maintain that ability. This omission is remedied in the final standard. It is clear that an employee must maintain his ability to service multi-piece rim wheels as long as he is involved in this work.

Virtually all of the comments concurred that proper training of employees is a necessary prerequisite to a safe operation. Goodyear Tire and Rubber Company stated that

> proper and thorough training is essential toward achieving a reduction in the rate of accidents. In view of the consequences of improper handling and technique, this training must be as specific as possible, and should be embodied within a well-defined procedure. [Ex. 3:(40)]

Others commented that specific training criteria be developed. Suggestions included on-the-job training; requiring a refresher course once a year; maintaining a record of training for each employee; and having employees sign a statement acknowledging receipt of this training. [Ex. 3:(18); 3:(21); 3:(25)]

OSHA has considered the fact that some employees may need relatively little training and practical experience to grasp the proper methods, techniques and practices and would need little or no periodic refresher training. Others may require additional initial training and periodic refresher training to retain their knowledge of safe methods and procedures.

In the final standard, the training requirement has been revised to assure that an employee receives sufficient training to enable him to safely perform the tasks which are involved in servicing multi-piece rim wheels. In addition to the initial training required in the proposal, the final stan-

dard places a continuing obligation on the employer to evaluate the capability of his employee and conduct additional training as necessary to assure that the employee maintains his competence at servicing multi-piece rim wheels. This not only insures that the initial training was effective, but also provides a means of determining the need for remedial or refresher training.

(4) *Tire servicing equipment—paragraph (d).* The unintended explosive separation of multi-piece rim wheel components is the primary cause of most occupational accidents associated with these wheels. A majority of the accidents under OSHA jurisdiction have occurred while the tire was being inflated following assembly. Accordingly, a significant reduction of injuries can be attained through use of a restraining device, such as a cage, specifically designed to protect employees from lethal airborne wheel components. An accepted practice for employee protection is to use a cage surrounding the wheel in such a manner as to prevent any wheel component from being hurled beyond the cage boundaries. The standard requires use of a restraining device while inflating a tire off the vehicle, except that a tire may be inflated to 3 psig (.21 kg/cm^2) without a restraining device for the sole purpose of seating the wheel components. (See discussion on safe operating procedures, paragraph (f)).

Due to the magnitude of forces associated with a wheel separation, strength requirements for restraining devices are necessary. Specifying these requirements necessitates knowing the amount of potential energy stored in the compressed air of a tire that will be transferred to the restraining device during a separation. For example, an analysis of high speed film in which the rim base gutter cone angle was machined to favor an explosive separation indicated that 8,200 ft.-lbs. (11,119 Joules) of energy was released when a 10.00 x 20 test tire was inflated to 105 psig (9.38 kg/cm^2). Calculations of

the total pneumatic energy in the tire indicated 75,000 ft.-lbs. (101,700 Joules) of available potential energy. After the energy transfer is determined for a particular size wheel, selection of an appropriate factor of safety will lead to a properly-designed restraining device for use with that wheel.

OSHA proposed that the generally accepted minimum factor of safety, 1.5 for machinery, be used for the largest wheel that a restraining device could hold. Several comments recommended that such design details for specific restraining devices be certified by professional engineers. [Ex. 3: (10); 3: (35); 3: (40);]. Another comment recommended that the design be specified only by the performance objective rather than by detailed design specifications which may become obsolete as technology changes. [Ex. 3: (47)]

The proposed requirement for restraining devices to be capable of withstanding a force of 150% of the maximum tire size that the device can hold is revised in the final standard. Although a safety factor is necessary, it does not appear practical to require an employer to have a cage designed to withstand an impact several orders of magnitude beyond that which would ever be encountered during its use. Some restraining devices are built so that their capacity (the size of tire capable of being held) is greater than the size tire actually used in the device. This is usually done to ease the job of manual tire handling by providing extra room within the device. If the device had to be strong enough to restrain the explosive force of any tire capable of being held in the device, as required in the proposal, the device might be unnecessarily heavy, thereby exposing the employee to other hazards during its manual handling. Since the device can be rated for a maximum size tire which provides a margin of safety, the final standard has been written to provide that the restraining device must be able to withstand at a minimum 150% of the force of an unexpected wheel separation for the

tire being handled, whether or not that wheel is the maximum size the device can hold. This provides the same margin of safety (1.5) as proposed, but more accurately reflects the actual usage of the restraining device in applying that margin.

In its proposal OSHA proposed to permit use of machinery or equipment other than cages as restraining devices. At that time the agency solicited information as to the availability and effectiveness of such other types of restraining devices.

Several comments supported the effectiveness of the cage type restraining device, including the portable cages currently available, but stressed that the standard should not restrict technology in developing other methods of restraint. [Ex. 3: (18); 3: (33)]

Ten comments were received on the issue of whether hydraulic lift rails are adequate restraining devices. Four were totally opposed to the use of hoist rails, whereas the others stated that they could be used under certain limited circumstances.

Those that were opposed stated that the use of hoists for this purpose is not safe, and that a hoist rail would have to be extensively modified to be used effectively and would provide only limited opportunity for use. [Ex. 3: (21); 3: (25); 3: (47)] Those who said a hoist could be used under certain circumstances contended that a hoist rail is better than nothing, but emphasized that it should be used only if it meets acceptable standards, including adequate size, strength, location and positioning [Ex. 3: (40); 3: (47)].

OSHA recognizes that most hoist rails have not been designed or specifically modified for use as restraining devices and that they are therefore unacceptable for this purpose. However, the final standard is written as a performance standard so as not to restrict the use of any specific type of device, including hoist rails, provided that the device

is specifically designed to restrain multi-piece rim wheels. Whichever device is used must be capable of restraining the components of a multi-piece rim wheel during explosive separation, and must meet the 150% margin of safety.

The standard prohibits the use of any restraining device with cracks in welds or components, or with bent or broken components, because such defects may cause equipment failure when subjected to dynamic loading. Stress concentrations around some cracks may cause the 1.5 factor of safety to be exceeded for the material; thus, if a cracked member of a restraining device is loaded to its original design value, the material at the apex of the crack may become overstressed, resulting in failure of the device.

The provisions for removal of damaged restraining devices from service are expanded in the final standard to establish additional, more specific criteria for such removal. OSHA has determined that there are defects other than cracks in welds or components which would also affect the ability of the restraining device to perform its intended function. Components which are broken or bent due to mishandling, abuse or a prior accident, or are excessively corroded (pitted) cannot be relied upon to perform their intended function. Therefore, the final standard requires that restraining devices with these defects be removed from service.

Many of the defects which would make the restraining device incapable of performing its function can be remedied or repaired once the device is out of service. However, it is essential that the repaired device be examined by a qualified person in order to assure that the device's restraining capability has not been impaired. To insure that the restraining device is capable of performing its intended function, the standard requires that, after repairs are made, the device must be checked and certified as meeting the strength requirements of paragraph (d)(1)(i) by the manufacturer or a registered professional engineer before being placed back

into service. As the designer of such equipment, the manufacturer is capable of determining a satisfactory method of repair. In addition, since the laws of most jurisdictions regulating the registration of professional engineers set standards of conduct and require levels of competence, it has been determined that allowing certification either by a professional engineer or by the manufacturer will permit the use of repaired equipment while assuring that repairs do not compromise the strength of the restraining device.

As stated in the proposal, inflation of tires installed on vehicles presents another major safety hazard. Many of the comments expressed concern that a restraining device was needed which could be used both during inflation of tires installed on vehicles and during handling of a wheel after inflation, but before its installation on a vehicle.

Most of the comments which addressed this question indicated that there is no practical method to provide such protection on the vehicle. [Ex. 3: (18); 3: (25); 3: (33); 3: (35); 3: (40)]

Other comments also indicated that there is no satisfactory restraining device for use while transporting and storing tire and wheel assemblies. [Ex. 3: (21); 3: (35); 3: (39)].

As indicated by the North Carolina Department of Labor in their comments:

> Although separation may occur during handling and storage between the service and installation operations, it is rare, especially if proper servicing and inspection procedures are followed. [Ex. 3: (21)]

After careful consideration, OSHA has determined that there is no practical method available to restrain wheel components while tires installed on vehicles are inflated or between the inflation of a demounted wheel and the time the wheel is installed on a vehicle. The most practical procedure to assure employee safety during that time period is

simply for the employee to minimize his exposure to the trajectory. (As noted in paragraph (f), wheels that have been driven underinflated at 80% or less of their recommended pressure or which have obvious or suspected damage to the tire or wheel components must be deflated before removal.)

The final standard requires the use of a restraining device only during the inflation of an assembled wheel off the vehicle. In order to provide protection when multi-piece rim wheels are serviced on the vehicle, the standard also requires that the employer provide equipment such as the clip-on-chuck and sufficient length of hose which permits the employee to be clear of the possible trajectory of each wheel component during inflation. During inflation and all other operations involving multi-piece rim wheels, the standard also requires the employee to stay out of the trajectory, unless the employer can show that it is necessary for the employee to be in the trajectory to service the tire.

The requirement that charts and rim manuals be made available remains largely unchanged from the proposal. The availability of current charts and rim manuals will assure ready reference for tire mechanics encountering unusual situations or rim matching problems.

In the proposed standard OSHA raised the issue as to whether a warning label for multi-piece rims should be specified. Section 6(b)(7) of the Occupational Safety and Health Act addresses ". . . the use of labels, or other appropriate forms of warning . . ." associated with employee exposure to hazards. Lock rings, side rings and rim bases, because of their size and operational use, do not lend themselves to being labeled. The manufacturer's name, size, type of rim and manufacturing date are presently required to be on ea multi-piece rim in accordance with Federal Motor Vehi Safety Standard 120. This information is imprinted into the metal components; however, due to surface rust and mud, legibility is reduced commencing with the use of the wheel.

In addition, rim manufacturers claim that stamping letters into rim components creates stress raisers, a hazard in itself, and recommend that the imprinting of rim components be minimized.

Warning labels are usually affixed to equipment presenting a particular hazard. However, in this case, the majority of comments felt that the use of a warning label or tag on wheel components is impractical and infeasible. [Ex. 3: (18); 3: (33); 3: (35); 3: (40); 3: (47)]. Other comments stated that warning labels would be unnecessary if the training of those servicing multi-piece rim wheels was adequate. [Ex. 3: (56)]

In light of the technical and practical problems as noted in the record, OSHA has concluded that warning labels should not be required in this standard. It is OSHA's feeling that the required training will identify the potential hazards and dangers of servicing multi-piece rim wheels and will reinforce the prescribed correct and safe procedures to be followed.

The proposed requirement which specified that proper tools be used for repair or servicing of wheels is being revised because of confusion as to what constitutes a proper tool. A review of several rim manuals has shown that each one contains lists or otherwise identifies the safest, most acceptable tools for use in servicing the particular multi-piece rim wheels covered in the manual. The final standard, therefore, requires that only tools listed or identified in the respective rim manuals be used for servicing.

(5) *Wheel component acceptability—paragraph (e).* The standard requires that wheel and rim components not be interchanged between different manufacturers' wheel models, except as provided on the charts.

The proposal would have required that side or lock rings that are bent out of shape, corroded or broken not be used and that they be removed from the service area, and that

any rim component containing visible cracks be removed from use and discarded.

After review of the proposal, OSHA recognized that the criteria for rejection of wheel components due to "corrosion" were not clear. Many wheel components in use will exhibit some surface rust when exposed to the rigors of usage but there is little likelihood that this surface rust, when not on a mating surface of the rim, will adversely affect the performance of the wheel. However, if the parts become so rusted as to actually affect internal grains of the metal structure (pitting the metal surface), OSHA doubts the continued reliability of the component. Therefore, the final standard clarifies this point by prohibiting the use of components which are pitted by corrosion, bent out of shape, or broken.

Wheel components must be inspected prior to assembly. The final standard, as did the proposal, requires that the mating surfaces of the rim gutter, rings and tire must be free of any surface rust, scale or rubber build-up prior to assembly and inflation.

Although the proposal stated that damaged components, be removed from the service area, some comments did not feel that was sufficient [Ex. 3: (18); 3: (25); 3: (31); 3: (40)]. The final standard goes further and requires that once components are damaged so as to require their removal from service, they are to be rendered unusable and discarded. OSHA believes that this will eliminate the possibility of inadvertent substitution of one unserviceable part for another unserviceable part and that adherence to this procedure will significantly reduce the potential hazard in servicing multi-piece rims.

(6) *Safe operating procedures—paragraph (f).* The standard requires that every employer instruct all his employees engaged in servicing multi-piece rim wheels in the practices and procedures prescribed in these standards.

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

Paragraph (f)(2) of the proposal would have required all tires which were driven underinflated (presumably, even if only slightly underinflated) to be deflated to 10 psig (.70 kg/cm^2) or less before removal from the axle. However, an additional paragraph, (f)(10), stated that *all* tires must be deflated prior to removal from the vehicle axle. It is clear that these two conflicting paragraphs have caused confusion. [Ex. 3: (26); 3: (30); 3: (36); 3: (38); 3: (54)]. These provisions were drafted too broadly and did not properly reflect the agency's intent. The intent of the proposal was to provide that when tires are driven while underinflated to a point where damage to the tire and wheel may have occurred, or when such damage otherwise is known or suspected to exist, the tire must be completely deflated prior to removal of the wheel from the vehicle axle.

Several comments expressed concern that both wheels on a dual assembly would have to be deflated before removal, even if only one had been driven underinflated or exhibited damage, if the provisions of proposed paragraph (f)(10) were followed. [Ex. 3: (10); 3: (38); 3: (46)] OSHA agrees that this would be impractical and inefficient and in some cases would expose the employee to the unnecessary risk of deflating and inflating another multi-piece rim wheel.

The final standard has been clarified to state that total deflation and removal is required only for the servicing of installed multi-piece rim wheels which exhibit obvious or suspected damage to the tire or wheel components or which have been driven underinflated at 80% or less of their recommended pressure.

Accordingly, deflation of both tires on dual assemblies is required by the final standard only if both tires meet any of these conditions.

The proposed requirement for deflating a tire before demounting is amended in the final rule to specify that the

deflation must be accomplished by removing the valve core. Removal of the valve core assures the complete deflation of the tire. If the valve is only pressed to release pressure, air may still remain in the tire. Removal of the valve core also allows the tube, in the event of localized deformation during the demounting process, to either exhaust or take in more air, thereby eliminating localized areas of pressure and stress on the multi-piece rim components. [Ex. 3: (20); 3: (39)]

The proposed requirement prohibiting employees from entering into the trajectory during deflation is changed in the final standard to provide that employees must remain out of the trajectory unless the employer can show that it is necessary for the employee to be in the trajectory to service the tire. It is recognized that removal of the valve core requires the employee to place his hand into the trajectory. Once the valve core is removed, the employee must stay completely out of the trajectory until the tire is completely deflated.

The proposed requirement that an employee not lean or rest his body or any equipment against the restraining device remains unchanged in the final. If a tire explodes within the restraining device, the suddenly-applied force exerted against the frame will immediately be transferred to the object or person resting against it. Except for the force absorbed by the containment of the exploding wheel components, the effects of the force upon the person or object leaning against the frame will be almost as severe as if the frame was not present. This process can be compared to a pool ball being hit by a fast moving cue ball. The energy of the rings is transferred to the tool, object or person leaning against the restraining device.

The proposed requirement that before assembly and inflation of the wheel and tire, a rubber lubricant shall be

applied to the bead and rim mating surfaces to reduce sliding friction received little comment and remains unchanged in the final standard.

The proposed safe operating procedure to assure proper seating of the components has been carried forward in the final standard. After a tire has been inflated in a restraining device and while the tire is still so protected, the tire, rim and rings are to be inspected to make sure they are properly seated and locked. If further adjustment work on the rim or rings is necessary, the tire must be deflated before proceeding with any adjustment.

The proposed prohibition against hammering, striking or forcing wheel components while the tire is inflated was strongly supported by many participants in this rulemaking and therefore remains unchanged in the final standard. [Ex. 3: (23); 3: (25); 3: (31); 3: (50)]

The proposed requirement for the servicing of tires off the vehicle has been changed. The proposal would have allowed tires to be inflated to not more than 10 psig (.70 kg/cm^2) outside the restraining device for the sole purpose of seating the tube, flap and tire, lock ring. This provision raised serious concern among public participants.

The Goodyear Tire and Rubber Company stated that 10 psig was more air than needed to perform the desired tasks and that a minimum amount of air (no more than 3 psig (.21 kg/cm^2)) should be put in a tire while the wheel is not in a safety cage. They stated that even 10 psig. (.70 kg/cm^2) is enough tire pressure to cause injury should a side ring not be properly seated. [Ex. 3: (40)]

The American Trucking Association also expressed concern that 10 psig (.70 kg/cm^2) was excessive and recommended a lower air pressure for seating. [Transcript (Tr): 13-14]

Based upon the concerns expressed in the comments, the allowable air pressure for seating the lock ring or round-

ing out the tube outside a restraining device has been reduced from the proposed 10 psig to 3 psig.

For pressures at or below 3 psig (.21 kg/cm^2), the danger of an explosive separation is minimal. The low risk of injury during the seating process must be compared to a higher risk of injury due to an explosive separation if the rings are not properly seated. When a tire is placed into a restraining device, the lock rings may slip out of the gutter, thus setting the stage for a subsequent explosive separation. Therefore, to assure proper seating of lock rings, the standard permits partial inflation outside of a restraining device, as noted earlier.

The proposal required that whenever any part of a rim base, rings or lugs is to be subjected to a high temperature heat source, such as from a welding or brazing torch, the tire must be completely deflated. This provision was intended to address those instances where heat is used to release components which are frozen due to age, rust, or defect. However, if this is done while the tire is inflated, an explosion may result because the heat increases the air pressure in the tire. [Ex. 3: (23); 3: (33)]

The practice of using heat on wheel components received serious criticism from RMA, Budd Company, and The National Wheel and Rim Association. These parties objected to any application of heat to a component, as it would have a detrimental effect on the strength, yield modulus and other characteristics of the metal. [Ex. 3: (18); 3: (25); 3: (31)]

OSHA recognizes that the application of heat may adversely affect the design and function of wheel components. There are alternative methods of releasing frozen lugs that are in general use in the industry such as penetrating oil or graphite solution. [Ex. 3: (23); 3: (25)] Therefore, the final standard has been revised to prohibit entirely the use of heat on wheel components.

The proposed requirement that mounted wheels with inflated tires be moved or stored so that the trajectory does not pass through a service area has been deleted from the final rule, based upon the comments which pointed out the infeasibility of complying with this requirement. [Ex. 3: (32); 3: (37); 3: (47)] Such a requirement would also necessitate that personnel be moved every time a tire is moved and is not feasible. It has therefore been deleted from the final standard.

C. Regulatory Assessment

In the preamble to the proposal, OSHA noted that a regulatory assessment, which was prepared for the agency by Centaur Management Consultants, Inc., was available for review and comment. This assessment, which was developed pursuant to Executive Order No. 12044 (43 FR 12661, March 24, 1978), and DOL implementing procedures (44 FR 5570, January 26, 1979), examined the effects of compliance with the proposed standard on cost, productivity, employment, critical materials, energy and market structure. The major findings of the "Economic Impact Statement/Assessment for Multi-Piece Rim Assemblies" include the following:

—The population at risk is approximately 322,000 persons. These persons are employed in 102,500 workplaces in ten industry segments. These persons will benefit from a safer workplace as a result of the standard.

—From 1968 to 1975, the wheel and rim industry reported a total of 295 injuries resulting from multi-price rim accidents. A minimum of 22 fatalities resulted from these accidents.

—Provisions of the standard resulting in economic impact include the use of restraining devices, clip-on-chuck assemblies and training.

—Capital costs resulting from compliance with the standard total $8,342,000. Total annualized costs including capital and training costs are estimated to total $3,810,000.

—Cost, productivity, employment, critical materials, energy and market structure impacts were examined. No significant impacts on any of these areas were found to result from compliance with the standard.

Based on estimated sales of restraining devices over the past 10 years, 24% of stationary workstations presently use cages or racks and 72% of mobile workstations presently use portable safety racks. It is estimated that those establishments currently using restraining devices also use clip-on-chucks with in-line valves. Therefore, approximately 77,700 establishments will have to purchase at least a $134 cage and a $21 clip-on-chuck for compliance with this standard. Wall charts and rim manuals are free to tire assemblers; consequently, only administrative costs are involved in their acquisition. The cost of training employees should not exceed an hour of employee time plus corresponding instructor time.

The major benefit to be attained by complying with this regulation is a significant reduction in the number of fatalities and permanent injuries which occur while servicing multi-piece rim wheels each year.

The benefit derived from using the proposed training technique is that it is applicable to both experienced employees and new hires, and it is flexible because employers may choose to conduct group training classes rather than individual instruction. In general, increased productivity, reduced insurance premiums, reduced workers compensation payments and fewer product liability suits can be expected through compliance with this standard.

Opportunity was given to interested persons to comment on and testify concerning the contents of the report and related issues. Since OSHA received no comments regarding the regulatory assessment, the determination that the standard on multi-piece rim wheels is not a "major" action in

terms of economic impact remains unchanged. Based on the record, OSHA also concludes that the standard is both economically and as technologically feasible.

D. Effective Date

Based on the information in the regulatory assessment, and in the absence of any contentions to the contrary, it is anticipated that employers will have little difficulty in obtaining restraining devices, clip-on-chuck assemblies or training materials. There should be no need for extended delay for employers to implement the provisions of the standard. Therefore, the effective date of this standard is April 28, 1980.

E. Appendices

Two appendices have been included in this permanent standard for information purposes. Nothing contained in the appendices should be construed as establishing a mandatory requirement not otherwise imposed by the standard, or as detracting from an obligation which the standard does impose.

The information contained in Appendix A illustrates possible trajectories of wheel components during an explosive separation. Appendix B contains information concerning ordering of wall charts.

The contents of the proposed appendices have been clarified where necessary.

F. Authority

This document was prepared under the direction of Eula Bingham, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, Third Street and Constitution Avenue, NW., Washington, D.C. 20210.

Accordingly, pursuant to section 6(b) of the Occupational Safety and Health Act of 1970 (84 Stat. 1593; 29 U.S.C. 655) Secretary of Labor's Order No. 8-76 (41 CFR 25059), and 29 CFR part 1911, Part 1910 of Title 29, Code of Federal Regulations is amended by adding a new § 1910.177 as set forth below.

Signed at Washington, D.C., this 18th day of January 1980.

Eula Bingham,
Assistant Secretary of Labor.

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

A new § 1910.177 is added to 29 CFR Part 1910, to read as follows:

§ 1910.177 Servicing multi-piece rim wheels.

(a) *Scope.* This section applies to the servicing of vehicle wheels which have tube-type tires mounted on multi-piece rims as defined below in paragraph (b) of this section.

(b) *Definitions.* "Charts" means the United States Department of Transportation, National Highway Traffic Safety Administration (NHTSA) publications entitled "Safety Precautions for Mounting and Demounting Tube-Type Truck/Bus Tires" and "Multi-Piece Rim/Wheel Matching Chart," or any other publications containing, at a minimum, the same instructions, safety precautions and other information contained on those charts that are applicable to the types of multi-piece rim wheels being serviced.

"Installing a Wheel" means the transfer and attachment of an assembled wheel onto a vehicle axle hub. "Removing" means the opposite of installing.

"Mounting a Tire" means the assembly or putting together of rim components, tube, liner (flap) and tire to form a wheel, including inflation. "Demounting" means the opposite of mounting.

"Multi-piece rim" means a vehicle wheel rim consisting of two or more parts, one of which is a side or locking ring designed to hold the tire on the rim by interlocking components when the tube is inflated, regardless of the sizes of the component parts.

"Restraining device" means a mechanical appartus such as a safety cage, rack, or safety bar arrangement or other machinery or equipment specifically designed for this purpose, that will constrain all multi-piece rim wheel components following their release during an explosive separation of the wheel components.

"Rim manual" means a publication containing instructions from the manufacturer or other qualified organization for correct mounting, demounting, maintenance and safety precautions peculiar to the multi-piece rim being serviced.

"Service" or "servicing" means the mounting and demounting of multi-piece rim wheels, and related activity such as inflating, deflating, installing, removing, maintaining, handling or storing of multi-piece rim wheels, including inflating and deflating of wheels installed on vehicles.

"Service area" means that part of an employer's premises used for the servicing of multi-piece rim wheels, or any other place where an employee services multi-piece rim wheels.

"Trajectory" means any potential path or route that a lock ring, side ring, rim base and/or tire may travel during an explosive rim separation, and includes paths which may deviate from that perpendicular to the assembled position of the components on the rim base at the time of separation. (See Appendix A for examples of expected trajectories).

"Wheel" means an assemblage of tire, tube, and multi-piece rim components.

(c) *Employee training.* (1) The employer shall provide a training program to train and instruct all employees who

service multi-piece rim wheels in the hazards involved in servicing multi-piece rim wheels and the safety procedures to be followed.

(i) The employer shall assure that no employee services any multi-piece rim wheel unless the employee has been trained and instructed in correct procedures of mounting, demounting, and all related services, activities, and correct safety precautions for the rim type being serviced, and the safe operating procedures described in paragraph (f) of this section.

(ii) Information to be used in the training program shall include, at a minimum, the data contained on the charts and the contents of this standard.

(iii) Where an employer knows or has reason to believe that any of his employees is unable to read and understand the charts or rim manual, the employer shall assure that the employee is instructed concerning the contents of the charts and rim manual in a manner which the employee is able to understand.

(2) The employer shall assure that each employee demonstrates and maintains his ability to service multi-piece rim wheels safely, including performance of the following tasks:

(i) Demounting of tires (including deflation);

(ii) Inspection of wheel components;

(iii) Mounting of tires (including inflation witin a restraining device);

(iv) Use of the restraining device;

(v) Handling of wheels;

(vi) Inflation of tires when a wheel is mounted on the vehicle; and

(vii) Installation and removal of wheels.

(3) The employer shall evaluate each employee's ability to perform these tasks and to service multi-piece rim wheels safely and shall provide additional training as necessary to assure that each employee maintains his proficiency.

(d) *Tire servicing equipment.* (1) The employer shall furnish and shall assure that employees use a restraining device in servicing multi-piece rim wheels.

(i) Each restraining device shall have the capacity to withstand the maximum force that would be transferred to it during an explosive wheel separation occurring at 150 percent of maximum tire specification pressure for the wheels being serviced.

(ii) Restraining devices shall be capable of preventing rim components from being thrown outside or beyond the frame of the device for any wheel position within the device.

(iii) Restraining devices shall be inspected prior to each day's use and after any explosive separation of wheel components and any restraining devices exhibiting any of the following defects shall be immediately removed from service:

(A) cracks at welds;

(B) cracked or broken components;

(C) bent or sprung components caused by mishandling, abuse or wheel separation; or

(D) pitting of components due to excessive corrosion.

(iv) Restraining devices removed from service in accordance with paragraph (d)(1)(iii) of this section, shall not be returned to service until they are inspected, repaired, if necessary, and are certified either by the manufacturer or by a Registered Professional Engineer as meeting the strength requirements of paragraphs (d)(1) (i) and (ii) of this section.

(2) A clip-on-chuck with a sufficient length of hose to permit the employee to stand clear of the potential trajectory of the wheel components, and an in-line valve with gauge or a pressure regulator preset to a desired value shall be furnished by the employer and used to inflate tires.

(3) Current charts shall be available in the service area.

(4) A current rim manual containing instructions for the type of rims being serviced shall be available in the service area.

(5) The employer shall assure that only tools recommended in the rim manual for the type of wheel being serviced are used to service multi-piece rim wheels.

(e) *Wheel component acceptability.* (1) Wheel components shall not be interchanged except as provided in the charts, or in the applicable rim manual.

(2) Wheel components shall be inspected prior to assembly. Rim bases, side rings or lock rings which are bent out of shape, pitted from corrosion, broken or cracked shall not be used and shall be rendered unusable and discarded.

(3) Mating surfaces of the rim gutter, rings and tire shall be free of any dirt, surface rust, scale or rubber buildup prior to mounting and inflation.

(f) *Safe operating procedure.* The employer shall establish a safe operating procedure for servicing multi-piece rim wheels and shall assure that employees are instructed in and follow that procedure. The procedure shall include at least the following elements:

(1) Tires shall be completely deflated before demounting by removal of the valve core.

(2) Tires shall be completely deflated by removing the valve core, before a wheel is removed from the axle in either of the following situations:

(i) When the tire has been driven underinflated at 80% or less of its recommended pressure, or

(ii) When there is obvious or suspected damage to the tire or wheel components.

(3) Rubber lubricant shall be applied to bead and rim mating surfaces during assembly of the wheel and inflation of the tire.

(4) Tires shall be inflated only when contained by a restraining device, except that when the wheel assembly is on a vehicle, tires that are underinflated but have more than 80% of the recommended pressure, may be inflated while

the wheel is on the vehicle if remote control inflation equipment is used and no employees are in the trajectory, and except as provided in paragraph (f)(5) of this section.

(5) When a tire is being partially inflated without a restraining device for the purpose of seating the lock ring or to round out the tube, such inflation shall not exceed 3 psig (0.21 kg/cm^2).

(6) Whenever a tire is in a restraining device the employee shall not rest or lean any part of his body or equipment on or against the restraining device.

(7) After tire inflation, the tire, rim and rings shall be inspected while still within the restraining device to make sure that they are properly seated and locked. If further adjustment to the tire, rim or rings is necessary, the tire shall be deflated by removal of the valve core before the adjustment is made.

(8) No attempt shall be made to correct the seating of side and lock rings by hammering, striking or forcing the components while the tire is pressurized.

(9) Cracked, broken, bent or otherwise damaged rim components shall not be reworked, welded, brazed, or otherwise heated.

(10) Whenever multi-piece rim wheels are being handled, employees shall stay out of the trajectory unless the employer can demonstrate that performance of the servicing makes the employee's presence in the trajectory necessary.

BILLING CODE 4510-26-M

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

Appendix F
Federal Register — Rules and Regulations
(January 29, 1980)

Appendix B—Ordering Information for NHTSA Charts

NHTSA has prepared safety information charts as part of a continuing campaign to alert truck and bus service personnel to the risk involved when working with multi-piece truck and bus wheels.

Individuals who service such wheels may obtain a single copy of each chart, without cost, by writing to the General Services Division/Distribution, National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, D.C. 20590.

Reprints of the above mentioned charts are also available through the Occupational Safety and Health Administration (OSHA) Area Offices. The address and telephone number of the nearest OSHA Area Office can be obtained by looking in the local telephone directory under U.S. Government, U.S. Department of Labor, Occupational Safety and Health Administration. Single copies are available without charge.

Service establishments and other organizations desiring these charts may order them in any quantity desired from the Superintendent of Documents, Government Printing Office (GPO), Washington, D.C. 20402, at a cost established by the GPO. GPO ordering number for the charts are: Safety Chart—050—003—00315—8, Cost: $2.25, Matching Chart—050—003—00316—6, Cost: $2.00.

(Sec. 6, 84 Stat. 1593 (28 U.S.C. 655); Secretary of Labor's Order 8—76 (41 FR 25059), 29 CFR Part 1911.)

[FR Doc. 80-2768 Filed 1-28-80; 8:45 am]

BILLING CODE 4510-26-M

APPENDIX G

federal register

Friday
February 3, 1984

Part V

Department of Labor

Occupational Safety and Health Administration

29 CFR Part 1910

Servicing of Single Piece and Multi-Piece Rim Wheels; Final Rule

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

FEDERAL REGISTER—RULES AND REGULATIONS
(FEBRUARY 3, 1984)

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

[Docket No. S-010]

Servicing of Single Piece and Multi-Piece Rim Wheels

AGENCY: Occupational Safety and Health Administration, Labor.

ACTION: Final rule.

SUMMARY: By this action the Occupational Safety and Health Administration (OSHA) amends the safety standard for the servicing of multi-piece rim wheels, 29 CFR 1910.177, to include requirements for the safe servicing of single piece rim wheels used on trucks, trailers, buses and other large vehicles. A single piece wheel is a unit used to retain the side walls of a tire, to form part of the chamber which contains the pressurized air (if a tubeless tire is utilized), and to provide the means of attachment of the assembly (the rim wheel) to the axle of a vehicle.

Single piece rim wheel accidents occur when the contained, pressurized air is almost instantaneously released by the tire bead either breaking or slipping over the rim flange. This incident is commonly referred to as "the sudden release of the pressurized air." The principal hazards are that the pressurized air, once released, can either pick up and hurl an employee across the workplace, if the employee is in close proximity to the rim wheel and within the trajectory, or the rim wheel can be propelled across the workplace and into an employee. This amended standard, which regulates the servicing of both single piece and multi-piece

rim wheels, includes requirements for training of all tire servicing employees; for utilization of industry-accepted procedures which minimize the potential for employee injury; for the use of restraint devices during inflation to retain the components; and for the use of compatible components.

The standard also contains several minor amendments to the provisions of the multi-piece rim wheel servicing standard.

EFFECTIVE DATE: This standard will become effective March 5, 1984.

FOR FURTHER INFORMATION CONTACT: James Foster, Occupational Safety and Health Administration, Room N-3637, U.S. Department of Labor, Washington, D.C. 20210. Telephone: (202) 523-8151.

ADDRESS: For additional copies of this standard contact: OSHA Office of Publications, U.S. Department of Labor, Room N4101, Washington, D.C. 20210. Telephone: (202) 523-9667.

SUPPLEMENTARY INFORMATION:

1. Background

A. Standard on Multi-Piece Rim Wheels

On January 29, 1980, OSHA issued a final standard on servicing multi-piece rim wheels (45 FR 6706) after informal rulemaking under section 6(b) of the Occupational Safety and Health Act (OSH Act). Multi-piece wheels consist of two or more detachable components, one of which is a side or locking ring designed to hold the tire on the wheel when the tire is inflated. Multi-piece wheels are used most frequently with tube type tires on trucks, tractors, trailers, buses, campers and off-highway vehicles. The major hazard in servicing multi-piece rim wheels is the possibility of an employee being struck by a wheel component which has

been thrown from a rim wheel during an unintended explosive separation. Further discussion of multi-piece rim wheels can be found in the preamble to the § 1910.177 final rule document (45 FR 6706, January 29, 1980).

The standard as originally promulgated in 1980 contains requirements for training employees who service multi-piece rim wheels; for the use of proper servicing equipment; for the use of compatible components only; and for the use of accepted, safe procedures. During the formulation of that standard, the scope of the regulation was restricted to the servicing of multi-piece rim wheels since the preponderance of the accidents being reported at that time were occurring during the servicing of that type of rim wheel.

B. Single Piece Rim Wheels

Single piece rim wheels are used on virtually all types of motor vehicles, including automobiles, trucks, trailers, buses and off-highway vehicles. Such vehicles rely heavily on the use of tubeless tires because such tires offer superior vehicle mileage due to less rolling resistance and are less likely to overheat. Tubeless tires are most commonly used on single piece wheels. Although some multi-piece wheels may be used with tubeless tires, such use requires an air-tight seal between wheel components since the wheel forms part of the chamber containing the pressurized air, and most multi-piece wheels are not designed to be airtight (Exs. 3-11 and 3-20).

Single piece wheels are designed with one side of the wheel narrower than the other side to facilitate the installation of the tire on the wheel. At present, between 15% and 20% of large vehicles such as trucks, trailers and buses are equipped with radial ply tires and single piece wheels. This percentage is expected to increase to 50% of all large rim wheels by 1990 (Ex. 4).

Although radial ply technology for vehicle tires was first introduced in the mid-1920's, radial ply tubeless tires and

single piece wheels for large vehicles were not utilized to any great extent until the early 1970's. This was due to the many problems which are inherent in the design of radial ply tires. The radial ply tire offers less sidewall support and less load carrying capability under severe service conditions than does the bias-ply tire, and is more prone to failure from sidewall scuffing or unusual side forces such as hitting a curb. The initial cost of radial ply tires is higher; however, radial ply tires offer less rolling resistance, thereby increasing the vehicle mileage per gallon of fuel. As the cost of fuel has increased, it has become more cost effective to use radial ply tires, and more and more of the large vehicle users have begun to switch to the use of radial ply tubeless tires. This has resulted in a corresponding increase in the use of single piece wheels.

Because they exhibit limitations under conditions of severe use, single piece rim wheels are favored on long distance, over-the-road vehicles where the loads imposed upon the rim wheels are termed moderate and the primary concern is good mileage. Vehicles which operate on rough terrain, at remote locations, or under heavy loading conditions, have continued to use the tube-type tire and multi-piece rim wheels since vehicle reliability and serviceability under extreme conditions is essential.

History of the Amendment for Servicing Single Piece Rim Wheels.

During the development of the standard for the servicing of multi-piece rim wheels (29 CFR 1910.177), the regulation of single piece rim wheel servicing was not considered since the largest number of accidents being reported were occurring when multi-piece rim wheels were being serviced. Additionally, the accidents which were occurring during the servicing of single piece rim wheels were, for the most part, not being reported or were not properly reported. Limited

testimony on single piece rim wheel accidents was presented at the 1979 public meeting on the multi-piece rim proposal (Docket S-005, Ex. 5, Pages 23 and 27). Mr. Freivoyel, representing Firestone Tire & Rubber Company, indicated there were safety implications with the use of single piece rims and tubeless tires. Mr. Besuner of Failure Analysis Associates, a firm hired by the National Wheel and Rim Association (NWRA) to determine the risks of servicing multi-piece rim wheels, stated that their preliminary findings (Ex. 2-3) indicated the on-road accident picture for single piece rim wheels looked as serious as that for multi-piece rim wheel servicing. However, their data were limited to one manufacturer's experiences and could not be presumed to be conclusive. Further, the Failure Analysis Associates' preliminary report did not examine accident data in tire servicing facilities and workplaces. For those reasons, and because of the limited period of industry usage of single piece rim wheels, the hazards of servicing single piece rim wheels were not recognized, and thus were not regulated during the multi-piece rim wheel rulemaking.

Subsequent to OSHA's promulgation of the standard for servicing multi-piece rim wheels, NWRA and Firestone Tire & Rubber Company petitioned OSHA, requesting an amendment to the standard for servicing multi-piece rim wheels, 29 CFR 1910.177, by adding requirements for the safe servicing of single piece rim wheels.

Examination of the industry studies (Ex. 2-3) by OSHA, in response to the petition, indicated an increasing number of accidents occurring during the servicing of single piece rim wheels. Based upon the available data, including that from four of the manufacturers of single piece wheels, OSHA determined that the likelihood of accidents and injuries when servicing single piece rim wheel is comparable to that which existed for the servicing of multi-piece rim wheels before promulgation of the OSHA multi-piece rim

wheel servicing standard. A Notice of Proposed Rulemaking (NPRM) for servicing single piece rim wheels was published in the **Federal Register** (47 FR 51159, November 12, 1982). The public comment period of 45 days was extended to January 26, 1983 (47 FR 57739, December 28, 1982). Twenty-nine comments were received in response to the above notices, with most commenters favoring the adoption of the proposed revision to the standard. A number of comments contained recommendations for minor modification of certain provisions of the proposal. There were no requests for a hearing.

A Regulatory Impact Assessment was prepared in accordance with Executive Order 12291 (46 FR 13193, February 17, 1981) and was made available to the public. OSHA determined that the proposal was not a "major" action which would necessitate further economic impact evaluation and the preparation of a Regulatory Impact Analysis. Opportunity was given for interested persons to comment on the subject matter and contents of the assessment.

Additionally, in accordance with the Regulatory Flexibility Act of 1980 (Pub. L. 96-353, 94 Stat 1164 (5 U.S.C. 601 et seq.)), OSHA assessed the potential economic impact of the proposal on small entities and examined some of the alternatives to it. Based upon that assessment, OSHA certified that the proposal would not have a significant economic effect on a substantial number of small entities. Opportunity was given for interested persons to comment on the subject matter and content of the report.

This final standard on servicing of multi-piece and single piece rim wheels is based on a full consideration of the entire record of the rulemaking proceeding, including the materials relied on in the proposal and all written comments and exhibits received. All materials in the record are available for public review and copying at the OSHA Docket Office, Room S-6212, U.S. Department of Labor, 3rd Street

and Constitution Avenue, N.W., Washington, D.C. 20210, telephone (202) 523-7894.

D. The Hazards of Servicing Single Piece Rim Wheels

OSHA has determined that the servicing of single piece rim wheels is hazardous based upon a review of the available accident and injury data. These data include selected product liability litigation records (Ex. 2-7) from cases involving injuries received during the servicing of single piece rim wheels. These records buttress the determination that employees who service single piece rim wheels are exposed to a significant risk of serious injury.

The principal hazard present during the servicing of single piece rim wheels is that the pressurized air contained in the tire may suddenly be released, either by the bead breaking or by the bead slipping over the rim flange. These incidents are caused by mismatching of the wheel and tire, by using damaged components, by failing to restrain the components, by welding on the wheel and/or by improperly mounting the tire on the wheel. The resulting air blast is strong enough to hurl an employee who is in close proximity to the rim wheel, and positioned within the trajectory, violently across the workplace. When the pressurized air is released on the side of the rim wheel against a solid surface, the flexure of the tire can also propel the rim wheel itself across the workplace and into an employee in its path. The force exerted on the rim flange of a single piece wheel by a pressurized tire is comparable to that of a tire mounted on a multi-piece wheel (e.g., a 10.00 x 20 tire, when inflated to 105 psi creates a force in excess of 40,000 pounds against the rim flange).

As noted above, the force of the pressurized air released from a single piece rim wheel is comparable to that force from a multi-piece rim wheel. The principal differences

between accidents involving single piece rim wheels and those involving multi-piece rim wheels center around the reaction to the release of the pressurized air in the tire. In multi-piece rim wheel accidents, the wheel components separate and are released from the rim wheel with violent force. The primary agent of employee injury in multi-piece rim wheel separations is any of the individual components of the wheel, such as the lock ring, which can be propelled toward an employee with explosive force as the wheel components separate. In the single piece rim wheel accident, the air blast itself is another primary agent of injury. The severity of the hazard is related not only to the air pressure but also to the air volume. Employees have been seriously or fatally injured when they were thrown against walls, ceilings, gas pumps or other hard and unyielding objects.

In addition, if the air blast is not released directly toward an employee but against a floor or wall, the unrestrained rim wheel can be hurled across the workplace. Therefore, if the release of air occurs on the side of the wheel that is lying against a solid surface, and the rim wheel is unrestrained, the entire assembly may become a projectile. Such movement is cause primarily by the flexure of the tire as the air escapes. An employee who is standing in the trajectory can be hit by the rim wheel when the air is released. In a test conducted by NWRA (Ex. 2-6) a single piece rim wheel with a weakened bead was pressurized to 110 psi, and the tire was made to fail on the side of the tire resting on the ground. The rim wheel, whose weight was approximately 200 pounds, was thrown approximately 30 feet into the air.

E. Accident Data

Data collection regarding single piece rim wheel accidents presents similar problems to those OSHA experienced in documenting multi-piece rim wheel accidents. Accidents to employees engaged in the servicing of single piece rim

wheels are often either not reported at all, or are categorized under broad classifications such as "falls" or "struck by object." Therefore, the data available to OSHA likely represent only a portion of the total injuries and fatalities.

As noted earlier, NWRA, in support of its petition, submitted a report on single piece rim wheels which was prepared by Failure Analysis Associates (Ex. 2-3). The report contained accident data which was gathered from several sources including National Highway Traffic Safety Administration (NHTSA) reports, manufacturers' files, the California State OSHA program (Cal/OSHA), and consumer litigation against rim manufacturers. In this report, Failure Analysis Associates stated that between 1970 and 1980 there were 112 accidents identified involving single piece rim wheels. Of that number, 91 occurred during single piece rim wheel servicing, and 15 of these accidents resulted in fatalities. Several accidents contained in the Failure Analysis Associates statistics were attributed to on-the-road tire failures such as blowouts (21 accidents) rather than servicing (91 accidents).

These statistics are incomplete as they do not include single piece rim wheel accidents whose causation is the subject of on-going litigation. Further, NWRA suggests that there are several factors which may have limited the number of single piece rim wheel servicing accidents in the past, but which may not have the same effect in the future. Included among these factors is the fact that the principal users of single piece rim wheels have been the larger trucking companies, with better trained and supervised personnel, better equipment, and more careful adherence to established procedures for servicing single piece rim wheels. Additionally, NWRA reports that because there have been some single piece rim wheel failures in more demanding applications (e.g., large loads, and/or heavy service), many of these com-

panies have thus far limited their use of single piece rim wheels to moderate loads and on-highway applications. Finally, as large vehicle single piece rim wheels have only recently come into widespread use, those accidents which would occur due to wheel deterioration have yet to occur. (See Ex. 2-3.)

In NWRA's view, these elements will become less dominant as the use of single piece rim wheels increases, and the accident and injury rates can be expected to increase significantly if OSHA does not regulate the servicing of single piece rim wheels.

In addition to the report submitted by NWRA, OSHA has examined the records of 25 product liability personal injury suits involving single piece rim wheels which occurred between 1971 and 1981. The sample of 25 case files contained information concerning:

1. The severity of typical injuries resulting from single piece rim wheel servicing accidents;
2. The average age of the victim;
3. The training received by the victim; and
4. The level of experience of the victim.

These records do not provide a complete or exhaustive survey of single piece rim wheel servicing injuries. They do, however, provide a valuable source of information on those injuries, and on the training and tire service experience of the injured persons.

Examination of the reports indicates that the sample contains reports of five deaths, five total disabilities, four permanent disabilities, 10 temporary disabilities, and one injury of unknown severity. Five workers were between the ages of 16 and 20 (two deaths and three total disabilities); nine were between the ages of 21 and 31 (including one death and two total disabilities); two were between the ages of 32 and 40; six were between the ages of 41 and 54 (including two deaths); and the ages of three persons were not reported.

Similarly, the relationships of experience and training of the victims were examined. Five of the victims were reported to have received some training in servicing single piece rim wheels; 13 victims were reported as having received no such training; and there was no report on whether the remaining seven had received training. Examining these reports as to worker experience, six workers had no prior experience; nine had less than one year of experience; eight had more than one year of experience, and two did not state a level of experience.

OSHA has determined, based on the available accident data, that a serious risk of injury exists for the worker who services single piece rim wheels, and that lack of training and experience in proper servicing procedures appears to be a significant factor in many single piece rim wheel servicing accidents.

F. Significant Risk

In Industrial Union Department, AFL-CIO vs. *American Petroleum Institute*, 448 U.S. 607 (1980), the Supreme Court ruled that in promulgating standards unders section 6(b) of the OSH Act, OSHA must determine that the hazard being addressed poses a significant risk to employees, and that the standard will significantly reduce or eliminate that risk.

The nature of the job and the workplace exposes many individuals to the hazards of servicing single piece rim wheels. Because the work does not require skilled labor, a long period of service is not characteristic of the workforce. There is high employment turnover, and hence, a large number of workers will be exposed to the risk.

OSHA estimates that slightly over 300,000 employees are potentially engaged in servicing single piece rim wheels. Many of those workers service single piece rim wheels infrequently and/or have not received any training on how to perform the servicing safely. As a result, they may not be

fully aware of the inherent hazards of servicing these rim wheels. Because of the workers' relative inexperience, single piece rim wheels present hazards which may not be generally recognized by the persons who service them. Further, many of these employees incorrectly assume that specific hazards are found only with multi-piece rim wheels, and that single piece rim wheels are safe to service.

With respect to the frequency of injury-producing accidents, the NWRA data indicate that there have been 91 servicing injuries between 1970 and 1980 (Ex. 2-3). On a per rim wheel servicing basis, this is about one injury-producing accident per million single piece rim wheel servicings. This rate is about the same as the rate which existed for the servicing of multi-piece rim wheels before the promulgation of the multi-piece rim wheel servicing standard (Ex. 2-3).

NWRA has projected that the injury rate may be expected to increase as the use of single piece rim wheels becomes more prevalent. More single piece rim wheels will be serviced by persons who have never handled, or infrequently handle, such rim wheels and/or who have never been trained in the proper procedures. Further as single piece rim wheels are used over a longer period of time, the average single piece wheel will be older than those currently being used. As these wheels age they will deteriorate and can be expected to be involved in more accidents and injuries. Therefore, OSHA believes that these factors are likely to result in higher injury rates in the future if a standard is not promulgated.

As discussed above, a large percentage of users of tubeless tires utilize single piece wheels. One of the benefits of the use of radial tubless tires is greater fuel efficiency, and thus interstate truck and bus lines have been switching to these tires. The data available to OSHA indicate that the percentage of all large vehicles which use single piece rim

wheels will increase from almost 20 percent in 1991 to about 50 percent in 1980. Therefore it is anticipated that the number of single piece rim wheel servicing will increase proportionately. This translates to about 280 to 350 million single piece rim wheel servicings over that period of time (1981-1990). Using this data, and assuming that the rate of injury-producing single piece rim wheel accidents does not change, OSHA estimates that if no standard is promulgated, there will be approximately 280 to 350 fatalities and injuries as a result of single piece rim wheel servicing accidents during the 10-year period of 1981 to 1990. For puposes of this determination, OSHA has assumed no increase in the accident rate in projecting the benefits to be derived by adoption of this proposal. If, instead of remaining constant, the accident rate were to increase for the reasons cited by NWRA, the number of expected fatalities and injuries would increase correspondingly.

As previously mentioned, Failure Analysis Associates reported that 112 single piece rim wheel accidents occurred between 1970 and 1979. These 112 accidents were categorized as having occurred either during maintenance operations (91) or during use (21). Of the 91 maintenance accidents, 15 (16.5%) resulted in a fatality, while the remaining 76 (83.5%) resulted in an employee injury. Using the above percentages, the 280-350 accidents projected to occur between 1981 and 1990 will result in 45 to 56 fatalities and 235 to 294 injuries.

Examination of the 25 litigation records made available to OSHA produced the following findings: there were five fatalities (20%); five accidents resulted in total disability (20%); four resulted in permanent partial disability (16%); 10 resulted in temporary disability (40%); and one was of unknown severity (4%). Of the 10 who were only temporarily disabled, the average time out of work was six months. The single piece rim wheel servicing injuries reported in these

litigation records were more severe than the average general industry occupational injuries, which involve an average of about 16 lost workdays (Ex. 2-14).

OSHA recognizes that there are serious limitations on the use of the litigation data to develop projections of the severity of injuries in the industry. It is clear, for example, that accident data which have been developed from litigation records of manufacturers of single piece wheels are likely to be skewed towards the more serious injuries and fatalities, as they are the most likely to lead to products liability litigation. Notwithstanding the limitations of such data, OSHA believes the injuries are a good indicator of the hazards of servicing single piece rim wheels.

Additionally, OSHA has noted that the percentage of fatalities reported in the litigation data (20%) closely parallels the percentage reported in the NWRA data (16.5%). Althought there is not sufficient information to allow a detailed comparison of their respective data, OSHA has assumed that the injury mix is similar for each of the data bases. For that reason, then, OSHA has assumed that the range of percentages of fatalities, total disabilities, and permanent disabilities found in the litigation data is between 15% and 20% for each category. OSHA has projected these percentages onto an extrapolation of the NWRA data to determine the expected number of fatalities and the different types of injuries. This projection also assumes that the number of accidents reported by NWRA for the period from 1970 to 1980 is an accurate figure, and that the percentage of single piece rim wheels will increase from 20 percent in 1981 to 50 percent in 1990. Based upon these assumptions, OSHA has determined that if no standard is promulgated, 50-67 fatalities, 50-67 total disabilities, 50-67 permanent disabilities, and 137-188 temporary disabilities will occur during the 10-year period.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

OSHA's analysis of the causes of the 91 injury-producing servicing accidents reported by NWRA indicates that approximately 90 percent of these accidents occurred while the tire was being inflated, and nearly 5 percent occurred while the rim was being welded. The other 5 percent are divided between those accidents which occurred when an employee was performing other servicing activities such as wheeling a rim wheel around the workplace or installing the rim wheel. This final standard contains the following provisions which, if followed, will prevent nearly all of these types of accidents in the future:

1. The worker must inflate the tire while the rim wheel is restrained, or bolted on the vehicle, and must stay out of the trajectory of the potential explosion;

2. The worker must inspect both the tire and the wheel in order to avoid mismatching them; and

3. The worker must never apply heat to a wheel.

The final standard also requires employers to train employees to ensure that they learn the industry-accepted servicing procedures. OSHA firmly believes that proper training will increase worker understanding of the seriousness of the hazards, and with that understanding will follow the likelihood that workers will comply with these procedures.

Several additional factors were considered by OSHA in developing the final standard. A review of the injury-producing accidents investigated by OSHA since promulgating the multi-piece rim wheel servicing standard indicates that there has been a 70 to 80 percent reduction in multi-piece rim wheel servicing injuries. Secondly, OSHA has been informed that after the promulgation of the Cal/OSHA standard in 1970, which covers the servicing of both multi-piece and single piece rim wheels, the number of single piece rim wheel servicing injuries fell from one per year between 1970

and 1975 to a total of one between 1976 and 1980, a reduction of approximately 80% (Ex. 2-3, pg. 26). Thus, OSHA concludes that the standard being published today will prevent injuries when it is followed, and that compliance by employer and employee is predictable. For purposes of its regulatory analysis, OSHA predicts that this standard would reduce injuries by approximately 75 percent.

Based on the available data, OSHA concludes that workers face a significant risk of serious injury or death when servicing large vehicle single piece rim wheels, and that promulgation of this standard will significantly reduce that risk.

2. Summary and Explanation of the Amended Standard

The following section discusses the individual requirements of the standard for servicing multi-piece and single piece rim wheels, including an analysis of the record evidence and the major issues raised during the rulemaking proceeding.

This amended standard sets requirements for training all employees who service large vehicle rim wheels; for the use of accepted safe practices and procedures; for the use of restraining devices, barriers or other safeguards; and for the use of other essential equipment. These and other portions of the standard, including those on the criteria for interchangeability of rim wheel components, have been revised and clarified from the proposal as described in detail below.

The language of the standard essentially follows that of the proposal except for revisions based on OSHA's review of the entire rulemaking record, including the written comments and data submitted during the comment period.

Virtually all persons who participated in the rulemaking by submitting comments agreed with OSHA's determination that the principal causes of accidents which occur during the servicing of single piece and multi-piece rim wheels

could be eliminated by proper training of employees; availability and utilization of restraints, necessary tools and equipment; and adherence to accepted safe procedures.

However, two commenters questioned the need for the standard based upon the accident rate (the number of accidents per million tire changes). One of those commenters (Ex. 3-2) stated ". . . in over 163 years of total experience of our management staff working with the single piece rim wheel, there has never been an injury." The other commenter (Ex. 3-13) objected to the issuance of a standard on the basis of statistics from a specialized industry, and supported by what he considered speculation that the risks will increase as more small firms enter the marketplace.

Although an employer may not have experienced an accident in his workplace, this could be attributed to any one or a combination of factors. For example, employees may have the requisite knowledge and experience, the employer may enforce the use of those procedures which minimize the potential for an accident, or the lack of accidents may just be good fortune. As discussed above, single piece rim wheel servicing accidents occurred when unsafe procedures were utilized usually by inexperienced and untrained personnel. Adherence to the provisions of this standard, which stress safe procedures and training, will decrease the potential for a rim wheel separation and the resulting fatality or injury.

OSHA recognizes that tire and wheel servicing may be considered a specialized operation. However, the servicing of single piece rim wheels is not a specialized industry because the servicing of such wheels occurs across industry lines. Considering the number of large vehicles utilized for movement of persons and goods by motor vehicle throughout almost all industry, and the correspondingly high number of individual rim wheel servicings, OSHA concludes that it is necessary to regulate the servicing of single piece rim wheels.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

1. Scope—paragraph (a). The multi-piece rim wheel standard is amended so that the servicing of single piece rim wheels and multi-piece rim wheels are incorporated into one standard. This incorporation allows the employer and employee to find those requirements for compliance in one text. This standard is intended to provide protection to employees engaged in the servicing of all rim wheels used on trucks, tractors, trailers, buses and other large vehicles. It applies to the servicing of these large vehicle rim wheels, whether they are serviced at the employer's place of business or at a remote location.

The proposal provided coverage of servicing operations in general industry and maritime employment. At the time of the proposal, OSHA did not believe that significant risk had been demonstrated for single piece rim wheel servicing in either construction or agriculture. The record of this rulemaking has provided no additional information on this point. Should additional data become available in the future on construction or agricultural injuries from servicing of single piece rim wheels, OSHA will consider whether further rulemaking activities are warranted.

Subsequent to the proposal, OSHA has issued a Final Rule on Marine Terminals (48 FR 30886) which does not address single piece rim wheels. It is planned to include coverage of single piece rim wheels for maritime employment by further rulemaking.

The proposed standard would have covered the servicing of multi-piece and single piece rim wheels used on trucks, trailers, buses and off-road machinery. The scope paragraph of the proposal excluded rim wheels on automobiles and light duty trucks or vans using automobile tires. However, single piece rim wheels were defined according to size in the definition paragraph. One commenter (Ex. 3-17) pointed out that approximately 15% of all new automobiles utilize a

spare tire with a 16-inch bead which would be covered by the proposed standard if adopted. This commenter further pointed out that some 1984 cars have been designed to utilize 16-inch wheels.

One commenter (Ex. 3-18) contended that the proposed exclusion of automobile tire servicing was not justified because the hazard of the sudden release of the pressurized air is greater than indicated in the preamble of the proposal. It was suggested by two commenters that OSHA amend the scope to cover all single piece rim wheels (Ex. 3-16 amd 3-18). Other commenters suggested that the meaning of automobile tires (Ex. 3-10), light truck vs. truck, off-road machines, etc., be clarified (Exs. 3-7 and 3-11).

Upon its review of the rulemaking record, OSHA has determined that there is insufficient evidence of a significant hazard during the servicing of automobile type rim wheels. For this reason, the servicing of automobile rim wheels will not be included in the final standard. Similarly, since the hazard of low pressure, light duty truck tires is essentially the same as for automobile type tires, their servicing is also excluded. OSHA has decided to use the commonly accepted term pick-up or van rather than the more general term light duty truck to define that class of vehicles. The action taken at this time does not preclude the initiation of further rulemaking at a later date if sufficient additional data becomes available to justify the need for the regulation of automobile and light duty truck tire servicing.

This final standard applies to the servicing of all rim wheels used on large vehicles such as trucks, tractors, trailers, buses and off-road machines, except those utilizing automobile or truck tires designated "LT".

2. Definitions—paragraph (b). The definitions adopted in this final standard are generally those which are commonly used in the tire and wheel industries; however, some of the

definitions have been modified to accommodate the regulatory nature of this standard and to minimize the potential for misunderstanding as indicated below. It was suggested that the definition of single piece wheels not be based on rim size (Exs. 3-18, 3-20 and 3-29). A single piece wheel was defined in the proposal as "a vehicle wheel or rim . . . with a diameter of 14.5 inches or more and a bead seat angle of 15°, or a diameter greater that 15 inches and a bead seat angle of 5°."

Several commenters noted that the scope paragraph of the standard and the definition of single piece rim wheels were inconsistent (Exs. 3-7, 3-10, 3-16, 3-17, 3-18 and 3-19), as the scope excluded automobile tires while the definition included some automobile tires by designating wheel size limits. Others recommended expanding the definition to include inflation pressures because such pressures were more related to hazards of servicing than the rim size. (Exs. 3-10 and 3-27). OSHA has concluded after reviewing the suggested language that the definition of single piece wheels should not be based on rim size. Likewise it is difficult to define a single piece rim wheel according to the inflation pressure because the severity of the hazard is dependent upon the volume of the contained air as well as its pressure. Therefore OSHA has revised the definition of a single piece rim wheel to be any rim wheel utilizing a one-piece wheel.

The proposal required the use of a barrier or restraining device during the inflation of single piece rim wheels, and a restraining device during inflation of multi-piece rim wheels. The final rule maintains the current requirement for the use of restraining devices in the servicing of multi-piece rim wheels. However, the proposed modification of this provision, to allow the use of devices or equipment which were not specifically designed for use as restraining devices, has also been adopted. As was noted in the proposal, OSHA believes that it is not necessary to specify that a particular

type of device be used to protect servicing employees from multi-piece rim wheel explosions. The comments received in response to the proposal were strongly in favor of providing additional flexibility for the employer in this regard. However, as the record of the previous rulemaking proceeding on multi-piece rim wheels made perfectly clear, there is a recognized need for some piece of equipment or device to be used to restrain multi-piece rim components.

Several commenters (Ex. 3-5, 3-6A, 3-18, 3-20, and 3-23) contended that because the strength requirements of barriers and restraining devices were the same, either of these two methods of protection should be permitted for multi-piece rims as well as single-piece rims. However, OSHA declines to extend the use of barriers to multi-piece rims. The testing and accident data on single-piece rim accidents, relied upon in the proposal, led the Agency to determine that a barrier would provide sufficient protection to employees engaged in single-piece rim wheel servicing, provided that they also stayed outside the trajectory. No such supportive data was submitted to the record to support an extension of this method to multi-piece rim wheels. To the contrary, OSHA, concluded, based on its full and complete rulemaking record on servicing of multi-piece rim wheels in 1980, that a cage, arrangement of bars, or comparable mechanism was needed to provide adequate protection for multi-piece rim wheel servicing. No new information has been developed since that time to convince the Agency to change its previous conclusions at this point. The parallel strength requirements provided for restraining devices and barriers in the present rulemaking are intended only to provide a comparable margin of safety for employees in all servicing operations. It should be noted, in this regard, that restraining devices used for multi-piece rim wheels are considered to be an acceptable means of restraint for single-piece rim wheels, as well.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

The differences between a restraining device and a barrier also occur in the definitions. A restraining device is a commonly used term for a generic device utilizing bars, pipes, and/or other metallic components to form a restraint which is also referred to as a "safety cage." (See the charts or rim manuals for a picture of a typical restraining device in use.)

In the proposed amendment, OSHA defined a barrier as a fence, wall or other structure which is used to contain the rim wheel components in the event that there is a sudden release of the pressurized air of a single piece rim wheel.

Although OSHA recognizes that a barrier could serve a dual purpose (contain rim wheel components and deflect the pressurized air) it was not OSHA's intent to require that a barrier would have to deflect the blast of air from a single piece rim wheel separation. Since the path of travel of the shock wave of the pressurized air is essentially perpendicular to the plane of the wheel, OSHA determined that requiring the employee stay outside the trajectory during inflation provides sufficient protection.

Three commenters (Exs. 3-5, 3-14, and 3-23) recommended including in the definition of a barrier that its purpose is to deflect the pressurized air as it is released from a single piece rim wheel. One of these commenters (Ex. 3-5) pointed out that air is not a solid and requires different means to manage it. In a test conducted by NWRA (Ex. 2-6), the shock wave of the compressed air was found to move generally perpendicular to the plane of the rim wheel with negligible effect outside the trajectory. As employees are required to remain outside the trajectory during tire inflation, to require that the barrier deflect the shock wave outside the trajectory might result in deflecting it towards the employee and, thus, would not necessarily increase employee safety.

3. Training—paragraph (c). This standard requires every employee who services large vehicle rim wheels to be trained by the employer in the proper techniques and practices applicable to the type of wheel being serviced. Training is required because many rim wheel servicing mechanics do not understand the potential dangers of servicing these rim wheels. A large number of the new employees service large vehicle rim wheels with no prior experience and/or training due to the large turnover of employees. Likewise the need for training is substantiated by a review of the accident cases in which the accident was caused by non-adherence to the industry-accepted procedures which are incorporated in this standard (see Item F, Significant Risk, above). OSHA considers that training, in conjunction with the use of a restraining device or barrier and the proper air line accessories, can contribute significantly to a reduction of accidents.

This standard does not specify the details of the training program, but simply requires the development and maintenance of employee proficiency in given elements of servicing. A mechanic's level of proficiency must be established by demonstration of his or her familiarity with and ability to use the information contained in the charts, rim manuals and this standard.

The training provisions of the standard are stated in performance language, allowing the employer flexibility in complying with the requirement for training. The responsibility of providing adequate training and evaluating the employee's proficiency rests with the employer.

OSHA has considered the fact that some employees may need relatively little training and practical experience to grasp the proper methods, techniques and practices, and would need little or no periodic refresher training. Others may require additional initial training and periodic refresher training to develop and retain their knowledge of safe methods and procedures.

In the final standard, the training requirement has been written to assure that an employee receives appropriate training to enable safe performance of the tasks which are involved in servicing both single piece and multi-piece rim wheels. In addition to the initial training required, this final standard places a continuing obligation on the employer to evaluate the capability of each employee and assure that the employee maintains competence at servicing rim wheels. This not only insures that the initial training is effective, but also provides a means of determining the need for remedial or refresher training.

4. Tire Servicing Equipment—paragraph (d). A majority of the rim wheel servicing accidents occur while the tire is being inflated. The unintended separation of a multi-piece rim wheel, or the sudden release of the pressurized air contained in a single piece rim wheel, is the primary cause of the occupational accidents involving these rim wheels. Accordingly, a significant reduction of injuries can be attained through use of a restraint, such as a restraining device or barrier, to contain the rim wheel components and protect employees from lethal airborne rim wheel components.

In the standard on servicing multi-piece rim wheels, OSHA required that restraining devices must be specifically designed to restrain rim wheel components. This provision was intended to ensure that employees would not use devices or components of equipment which were inadequate to perform that function. In the proposed amendment to the standard, OSHA proposed deletion of the "specifically designed" requirement. OSHA reasoned that any device or piece of equipment which was not originally designed or intended to be used as a restraint, could be used as a restraining device if it was capable of protecting the employee as prescribed in the proposal.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

The final rule is written to ensure that restraining devices and barriers meet minimum strength requirements. Several commenters (Ex. 3-3, 3-16, and 3-19) suggested that some pieces of equipment might erroneously be considered as restraining devices and stressed that OSHA should clarify such instances. This would preclude an employee from utilizing a makeshift restraint from some inefficient material; for example, an employee using an old rusty chain to restrain a rim wheel by wrapping the chain around the rim wheel. The standard specifically defines what constitutes a barrier and a restraining device, and sets forth performance criteria which must be met.

Due to the magnitude of the forces associated with a rim wheel separation, it is necessary to specify strength requirements for restraining devices and barriers. Since the forces associated with an unintended separation of a multi-piece rim wheel and the sudden release of the contained air in a single piece rim wheel are of the same magnitude, the design factor (the ratio of the working load limit to the ultimate strength of the device) for restraints used for servicing both type rim wheels should be the same. OSHA proposed that the generally accepted minimum design factor of 1.5 for machinery, which was adopted for restraining devices, should also be applied to barriers since the restraining device and barrier serve the same purpose and their use is interchangeable for single piece rim wheels.

The proposal required that when servicing single piece rim wheels, the employer shall provide a restraining device or barrier, except when a single piece rim wheel is bolted to the vehicle during inflation. One commenter (Ex. 3-11), addressing the use of restraining devices, noted that there is a design difference between a vehicle for use on highways and off-road machines. Because of the unique characteristics of off-road machines, the commenter suggested that separate paragraphs be used to address these differences. This com-

menter pointed out that some off-road machines have wheels which are an integral part of the machine's axle and cannot be removed, making the use of a restraint impractical. This commenter suggested that a barrier could be used, provided a barrier is defined as the machine itself and/or the service vehicle, and the employee stays out of the trajectory during inflation of the tire.

Since a barrier is defined in this final standard as an object or structure placed in the potential trajectory of a rim wheel to contain the rim wheel components in the event of the sudden release of the contained air of a single piece rim wheel, the use of the service vehicle or the machine itself is permissible provided the strength requirements of this standard are met. The above commenter also suggested that multi-piece rim wheels which are not an integral part of the vehicle axle could be inflated safely while bolted onto the vehicle with the lug nuts. OSHA disagrees. Unlike the single piece wheel, which is only one piece, the components of a multi-piece wheel (e.g., the locking rings and the side rings) cannot be restrained simply by bolting the multi-piece rim wheel to the axle. Therefore, in the event of an explosive separation the rim wheel components could still ricochet around the workplace even if the wheel were bolted to the axle. Requiring the employee to stand out of the trajectory without restraining a multi-piece rim wheel does not offer adequate protection to the employee.

Accordingly, the final rule does not allow bolting to the axle as an exception to the use of a restraining device for inflation of a multi-piece rim wheel. However, paragraph (d)(2) does allow an employer to bolt a single piece rim wheel to an axle as a means of complying with the restraint requirements of the standard, because that practice would effectively restrain that type of wheel.

Paragraph (d)(3)(i) proposed the same strength requirements for barriers as for restraining devices. The multi-piece

rim wheel servicing standard required that a restraining device be capable of withstanding the maximum force occurring at 150% of the maximum tire specification pressure. A few comments contained arguments that the requirement of 150% of recommended tire pressure does not ensure a restraining device of adequate strength to protect employees from rim wheel separation. It was stated that a tire with a 32 psi maximum inflated pressure would only require a restraining device capable of restraining the rim wheel components if the separation occurred at 48 psi (Ex. 3-16). This commenter contended that typical tire servicing businesses have air compressors in the range of 140 to 175 psi and therefore a tire could easily be inflated above the 48 psi capability of the restraint. Likewise another commenter (Ex. 3-18) noted that "A 750-16 8-ply rated tire, for example, would not be adequately restrained above 97.5 psi, yet this tire could be inadvertently inflated to 150 psi and above with the compressor inflation delivery systems commonly available." This same commenter suggested the final requirement be phrased to require that each restraining device or barrier be capable of withstanding the maximum force of a rim wheel separation or sudden release of the air occurring at a tire pressure equal to the pressure limit of the available inflation delivery system (air supply).

Even though overinflation has been a contributory factor in some accidents, OSHA does not accept the above contentions. The Agency has determined that the strength requirements of this standard are correct for two reasons. First, although any rim wheel can be rapidly overinflated to the maximum pressure of the air delivery system, the operating procedures required in this final standard prohibit inflating a tire to a pressure exceeding the manufacturer's recommendation. In addition, requiring the utilization of a restraint which would meet the strength requirements neces-

sary to contain a rim wheel with the tire inflated to the pressure of the air system is not feasible, as such design requirements would make these restraints exraordinarily large, unwieldy, and expensive.

In paragraph (d)(3)(iii), OSHA proposed to preclude a barrier or restraining device from having a flat, solid surface (such as the bed of a tire changing machine) against which a rim wheel could lie or lean during inflation. This rule was proposed because a series of tests conducted by NWRA (Ex. 2-6) showed that when a single piece rim wheel lay unrestrained on the ground it was propelled over 30 feet into the air, after the air was suddenly released on the side closest to the ground. Contrary to the opinion of one commenter (Ex. 3-16), the rim wheel movement was not caused by the jet effect of the escaping air, but was due primarily to the flexure of the sidewalls of the tire. In reviewing this proposed provision, OSHA has become aware that the protection provided by proposed paragraph (d)(3)(iii) was also provided in paragraph (g)(7), which prohibits tires from being inflated when a flat solid surface is in the trajectory and within one foot of the tire's sidewall. OSHA realizes that this resulted in unnecessary duplication. In addition, in referring to the bed of a tire changing machine in proposed paragraph (d)(3)(iii), OSHA did not intend to imply that a tire changing machine is a restraint. Although the wheel could be attached to a tire changing machine, a manufacturer of tire changing machines indicated that a tire changing machine is not a restraining device as it does not meet the necessary strength requirements, and should not be used as such (Ex. 3-16). Further, paragraph (g)(4) limits the amount a tire may be inflated while on a tire restraining machine. Therefore, OSHA has deleted the proposed (d)(3)(iii) in the final standard to reflect these concerns. Paragraph (g)(7) accomplishes OSHA's intent as it assures that employees do not lay a rim wheel against a barrier or any other solid flat surface during inflation.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

In the proposed amendment of paragraph (d)(3)(v), OSHA required the employer to obtain certification by the manufacturer or a registered professional engineer to service. Seven commenter (Exs. 3-5, 3-6, 3-9, 3-13, 3-14, 3-18, and 3-23) questioned the necessity of a registered professional engineer to certify that a restraining device or barrier, which has been removed from service, can be returned to service. These commenters contended that since the determination of whether or not a restraining device or barrier is damaged is left to the employer, the decision as to the device's capability of meeting strength requirements should be left to qualified service people. One commenter (Ex. 3-18) noted that the employer is ultimately responsible for employee safety under the Occupational Safety and Health Act; therefore, such a decision should be made by the employer. Finally, one commenter suggested that where the employer is also the manufacturer, particularly when a barrier is in use, the employer is competent to assess the capabilities of the device.

When a barrier or restraining device becomes unserviceable, the problems such as cracks at welds or excessive corrosion can usually be detected by visual inspection. For these reasons, paragraphs (d)(3)(iii) and (iv) provide that the employer must assure that a restraining device or barrier would meet the strength requirements if the restraint has been removed from service; but a restraint must still be certified by a manufacturer or professional engineer following structural repair such as component replacement or rewelding.

OSHA proposed that a hose assembly with a clip-on chuck; a sufficient length of hose to allow the employee to remain outside the trajectory during tire inflation; and an inline pressure gauge or a presettable regulator, be used when inflating rim wheels. Several commenters (Exs. 3-5, 3-6, 3-18 and 3-23) disagreed with the terminology of this

proposal, preferring to call the tire filling apparatus an "air line assembly." One commenter (Ex. 3-18) suggested the inclusion of a requirement for both an inline valve and presettable regulator, a nomenclature change from hose assembly to air line, and a clarification of what constitutes a sufficient length of hose when a presettable regulator is utilized. Concern was also expressed that readers would assume OSHA required the regulator to be a part of the hose. OSHA does not agree that a requirement for an inline valve plus a presettable regulator is necessary, and has adopted the proposed language to allow the employer flexibility in choosing the type of air line assembly to be used for inflation of tires. The recommended change in terminology to "an air line assembly" has been adopted in the final rule.

5. Wheel component acceptability—paragraph (e). The current standard for servicing multi-piece rim wheels requires that rim wheel components be compatible and serviceable. Mating surfaces of tires and wheels are required to be free of foreign material when assembled. It was proposed to add a specific provision for both multi-piece and single piece rim wheels, to require the checking of the wheel and tire for compatibility. Tire and wheel mismatching was identified as a major cause of the accidents which have occurred during the servicing of both multi-piece rim wheels and single piece rim wheels. Several accidents have been reported as the result of an employee attempting to mount a tire on a wheel whose bead diameter is too large for the tire, such as a 16-inch tire being installed on a 16½-inch wheel. The opposite situation is equally hazardous, e.g., when a tire of larger diameter is installed on a wheel of smaller diameter, as the tire bead will not firmly seat into the rim gutter and can slip over the rim flange, particularly when the tire is being inflated. The final rule requires that the wheel and tire be checked to assure that they are compatible.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

In the proposed amendment to the standard on servicing multi-piece rim wheels, OSHA raised the issue as to whether the present charts which cover multi-piece rim wheels should be revised to include the servicing of single piece rim wheels. Because the majority of servicing accidents were linked to improper procedure and/or mismatching components, the requirement for charts was to assure that a handy, easily accessible means to confirm the correct procedure and/or components for servicing rim wheels was available to the employee. The response of commenters varied from suggesting deletion of all chart references to incorporating additional charts for single piece rim wheels (Exs. 3-4, 3-5, 3-6, 3-10, 3-13, 3-14, 3-18, 3-20, and 3-23).

In the final standard, charts are defined as the U.S. Department of Transportation posters or any other publication containing, at a minimum, the same instructions, precautions and other information. A review of the rim manuals available to OSHA (Docket S-005, Ex. 2-5) indicates that the rim manuals contain, at least, the same instructions, precautions and other information as the charts. OSHA believes, therefore, that it is not necessary to revise the charts because the information is available in the rim manuals. Since the goal of the regulation requiring charts was to make the necessary information available to the employee providing the rim wheel servicing, OSHA has decided not to publish a separate chart for servicing single piece rim wheels, but, has changed the definition of charts to permit the use of rim manuals to comply with the provision requiring charts in a service area.

OSHA considers the availability of the information contined on the charts and the rim manuals to be essential in the workplace, not only to assist the employee in performing the job safely but also to aid the employer in training and supervision. Therefore, OSHA continues to require that charts or rim manuals be available at the workplace when servicing rim wheels.

Five commenters (Exs. 3-6, 3-10, 3-20 and 3-21) made suggestions regarding the requirements of paragraph (e)(2). This paragraph set requirements for inspection prior to assembly and required that unserviceable wheels be rendered unusable and discarded. Four commenters (Exs. 3-6, 3-10, 3-20 and 3-21) suggested the inclusion of the words "or wheel components" in the criteria for rejection of wheels. One commenter (Ex. 3-21) suggested that it was inadvisable to render unusable and discard an unserviceable wheel or its components, particularly when that wheel or component could have been in use when a rim wheel incident occurred, and may be required as evidence in litigation.

Additionally one of these commenters pointed out that the requirement in paragraph (e)(4) for a matching bead diameter was incomplete, as a wheel and tire with different widths were equally unsafe (Ex. 3-8). It was recommended that the wording of (e)(4) be changed to read "matching size" instead of "matching bead diameter."

OSHA has considered the comments regarding the proposed requirement to render unserviceable wheels or wheel components unusable. The intent of this regulation was to assure that an employee would not attempt to reuse an unserviceable part. Rendering the part unusable is certainly one method to guard against reuse of those parts. However, OSHA does not believe that such action is necessary to prevent reuse of unserviceable wheel components in all cases.

In an effort to maintain the intent of the requirement and yet allow the employer more flexibility, the final standard will continue to prohibit the use of an unserviceable part, but will not require that the part be rendered unusable. Instead, the employer must assure that the unserviceable part is not used and is designated as unserviceable and placed or stored away from serviceable parts.

Based on the above comments, OSHA has modified paragraph (e)(2) to include the terminology "or rim component", and paragraph (e)(4) to specify the need to match both wheel bead diameter and width with the allowable values for the tire.

6. Safe operating procedures—multi-piece rim wheels—paragraph (f). In the standard for servicing multi-piece wheels, OSHA requires the utilization of certain procedures which are generally recognized in the tire servicing industry as those procedures which are essential to ensure that the servicing is done safely. These procedures include deflating the tire before demounting or removing the rim wheel when there is known or suspected damage to the wheel. The standard requires the use of rubber lubricant, the use of a restraining device during inflation, and inspection of the rim wheel following inflation and before removal from the restraining device. Certain work practices are prohibited, including hammering, striking or forcing the components to get them seated properly, and the reworking of damaged wheel components. Additionally, employees are required to remain outside the trajectory during tire inflation. Although there are several minor changes in this paragraph, this final rule does not change the above mentioned elements of the standard in any major way.

In the proposed amendment, OSHA proposed to allow the heating of lug nuts to facilitate their removal from the vehicle's axle studs after the tire was completely deflated. Four commenters (Exs. 3-6A, 3-18, 3-20 and 3-23) objected to the application of heat to any metallic wheel component, including the lug nuts. These parties objected to any application of heat to a wheel, as it would have a detrimental effect on the strength, yield modulus and other properties of the metal. OSHA agrees that the application of heat may adversely affect the design and function of wheel components. There are alternative methods of releasing frozen

lug nuts that are in general use in the industry, such as the use of penetrating oil or graphite solution. Therefore, the final standard has been revised to prohibit the use of heat on any wheel component.

Comments were also received regarding the use of rubber lubricant as required in paragraph (f)(3). One commenter (Ex. 3-11) recommended that the use of rubber lubricant on off-road machine rim wheels be required only "as needed." This commenter, an off-road machine manufacturer, stated,

Excessive rubber lubricant can cause tire slippage on the wheel and corrosion with the tire. Since the requirement really has nothing to do with safe assembly procedures, but is only a matter of convenience, it's (sic) use should not be mandatory and probably should not be in the rule.

Contrary to the claims of this commenter, available literature, such as the Goodyear Off-Highway Rim Manual (Docket S-005, Ex. 2-25, Attachment 5), indicated the need to use rubber lubricant to allow the tire bead to be slipped over the rim flange during assembly of the rim wheel with a minimum of potential for the tire bead to be cut or otherwise damaged. Damaging the tire bead during rim wheel assembly can cause premature failure of the tire at a pressure far below the maximum operating pressure of the tire. This failure could cause the type of injuries of OSHA intends to prevent. If there is some reason not to use rubber lubricant on a particular type rim wheel, either the tire or wheel manufacturer will recommend that it not be used. For the above reasons, OSHA will continue to require the use of rubber lubricant unless the tire and/or wheel manufacturer recommends it not be used.

One commenter (Ex. 3-11) recommended that vehicle tires on multi-piece wheels be allowed to be reinflated while remaining on the vehicle if the tire contained more than 80% of the recommended pressure or was less than 20 psi below the rated tire pressure. This commenter contended that low

pressure tires (those with 20 to 40 psi maximum inflating pressures) could be run with very low pressures without damaging the wheel or tire. Adoption of the 20 psi parameter could allow the low pressure tires to be run from zero to 50% of their rated capacity and still be reinflated while the rim wheel remained on the vehicle. OSHA has no evidence that any tire could be run while this severely underinflated without causing damage to the tire. OSHA requires that tires must be inflated while protected by a restraining device; therefore, requiring removal of the rim wheel is necessary to reinflate the tire because a multi-piece rim wheel cannot be restrained while on the vehicle.

7. Safe operating practices—single piece rim wheels—paragraph (g). In paragraph (g), OSHA proposed the utilization of safety procedures which have been used in those segments of the tire servicing industry which have the lowest accident rate (Ex. 2-3 and Docket S-005, Ex. 2-1). OSHA has determined that adherence to these procedures reduces the hazards of servicing single piece rim wheels. Many procedures are necessary for servicing both multipiece and single piece rim wheels. When the servicing procedures differ, such as the requirement for mounting and demounting the tire only on the narrow ledge side of the single piece wheel, or the requirements relating to the use of the tire changing machine, these procedures have been specified as applying to one or the other type of wheel.

In paragraph (g)(1), OSHA proposed to require that the tire be completely deflated by removal of the valve core before demounting. One commenter (Ex. 3-18) recommended that the valve core be fully inserted before inflating the tire. This commenter did not specify whether the valve core was to be in place prior to the employee inflating the tire enough to force the tire bead up onto the bead seat or before final inflation. The usual procedure used in the servicing of tubeless tires is to attach the air chuck to the valve

without the valve core being in place following assembly, but before the cone of the tire changing machine is loosened. The employee then tries to manipulate both tire beads onto the bead seats by using a bead expander or by manually manipulating the tire while blowing air into the tire. As soon as the tire bead slips onto the bead seat, the chuck is removed, the air escapes, the valve core is inserted and the center spindle of the changing machine is loosened. The tire is then inflated to the correct pressure. The presence or absence of the valve core does not significantly affect pressure build-up or bead hang-up; therefore, the change suggested by the commenter is not necessary and is not included in the final rule.

Paragraph (g)(2) proposed that mounting and demounting of the tire be done only from the narrow ledge side of the wheel; that care be taken to avoid damage to tire beads while mounting tires on wheels; and that tires be mounted only on compatible wheels of matching bead diameter. As noted earlier, one commenter (Ex. 3-18) pointed out that the tire and wheel width must also be compatible. Since a mismatch of a wheel and tire can occur either with the bead diameters or the tire and wheel widths, OSHA has amended the final standard to require that tire and wheel bead diameter and width be compatible.

OSHA proposed to require the use of rubber lubricant when assembling a single piece rim wheel (paragraph (g)(3)). As discussed above in the discussion of paragraph (f)(3), OSHA will require the use of rubber lubricant unless the wheel or tire manufacturer advises against its use. One commenter (Ex. 3-6) recommended that rubber lubricant used during the assembly of single piece rim wheels not contain any flammable substances. Since the point at which a substance will spontaneously ignite is decreased as the partial pressure of oxygen in the air increases (as the air is com-

pressed), this is a necessary addition to the standard, particularly for the servicing of tubeless tires. Therefore, the final rule will require that rubber lubricants used on single piece rim wheels not be flammable.

In paragraph (g)(4), OSHA proposed to allow the use of a tire changing machine during inflation only to seat the tire bead, and only during inflation of the tire to no more than 10 psi. Seven commenters (Exs. 3-5, 3-6, 3-16, 3-18, 3-19, 3-21 and 3-24) responded to this proposed servicing requirement. Five commenters recommended increasing the maximum pressure to 40 psi, while one commenter suggested deleting the requirement as being design restrictive. In the standard on servicing multi-piece rim wheels (44 FR 6706, January 29, 1980), OSHA required that the minimum amount of air (3 psig) be used to force the tire bead onto the bead seat rather than to fully seat the bead. Because several informal reports after the promulgation of the multi-piece rim wheel standard indicated that the pressure of 3 psig was difficult to determine, OSHA proposed an increase in pressure up to 10 psi. This increase accomplished OSHA's intent without significantly increasing the hazards of inflation. However, one commenter (Ex. 3-6) pointed out, and OSHA agrees, that it is not necessary to seat the bead fully before the rim wheel is handled. It is only necessary to use enough pressure to force the tire bead onto the bead seat and provide an airtight seal to allow placement of the rim wheel into or behind a restraint or onto a vehicle. Therefore, the standard will only allow the use of the minimum amount of air to force the tire bead onto the seat before placing the rim wheel in a restraining device or behind a barrier.

Paragraph (g)(5) was proposed to allow the use of a bead expander only to seat the beads of a tire. Five commenters (Exs. 3-6, 3-13, 3-14, 3-18 and 3-21) addressed the proposed requirement. Four of the commenters recommended maximum tire inflation pressures from 3 to 40 psi before removal

of tire expander. One commenter (Ex. 3-6) recommended that a bead expander be removed as soon as the air seal is obtained. Based upon the same rationale as discussed for the adoption of paragraph (g)(4) above, OSHA believes that a bead expander should be removed as soon as the air seal is obtained (the tire bead is forced onto the rim ledge).

In paragraph (g)(6), OSHA proposed to allow tires on single piece wheels to be inflated above 10 psi only while contained in a restraining device, positioned behind a barrier, or bolted on a vehicle with the lug nuts fully tightened. Although the provision has been changed, the intent remains the same. The words "shall only be fully inflated" have been substituted for the words "may be inflated above 10 psi only." This change is consistent with the changes made in the rest of the paragrapn. This restriction would also preclude the use of a tire changing machine as a restraining device as paragraph (g)(4) limits the amount a tire may be inflated while on a tire changing machine.

Paragraph (g)(7) was proposed to prohibit the placement of a rim wheel during inflation so that a flat, solid surface is in the trajectory and within one foot of the sidewall. Seven commenters (Exs. 3-5, 3-6, 3-8, 3-14, 3-18, 3-19 and 3-22) advised changing the requirement. Most felt that the requirement was impractical. One objection was that the prohibition precluded storage of tires. OSHA intended this requirement to apply only when the tire on a single piece wheel was being inflated. Even though a restraining device or barrier is being used, a rim wheel or its components which become airborne in the event of the sudden release of the air could be propelled about the workplace if the part ricocheted off a surface. Prohibiting the placement of a rim wheel within a foot of a flat, solid surface during inflation will ensure that the rim wheel will not become airborne. The requirement has been amended to reflect OSHA's intent.

OSHA proposed paragraph (g)(8) to require that tires not be inflated above their recommended tire prressure. Seven comments (Exs. 3-5, 3-6, 3-11, 3-14, 3-18, 3-20 and 3-21) were submitted seeking clarification of the requirement. A majority of the commenters pointed out that there are a variety of recommended operating pressures for various rim wheel applications. The U.S. Department of Transportation regulation, FMVSS 119 (49 CFR 571), requires a stamping on each tire indicating a maximum load at a recommended tire pressure. OSHA believes that overinflation can enhance the potential for accidents. Recognizing that some manufacturers' accompanying literature recommended inflating tires above the pressure stamped on the tire sidewalls in certain circumstances, the final rule restricts the inflation of tires during servicing to the tire pressure stamped on the sidewall unless the tire manufacturer recommends a higher pressure.

As OSHA discussed in the preamble to the proposal, employees must remain outside of the trajectory during tire inflation. In the final standard, the requirement remains as proposed; requiring an employee to remain outside the trajectory during inflation in conjunction with the other safe servicing procedures will prevent an employee from being struck by an airborne rim wheel component.

Paragraph (g)(10) proposed to require that if the tire beads do not fully seat by the time the tire is inflated to its recommended pressure, the rim wheel must be disassembled and the cause determined. Although five commenters (Exs. 3-6, 3-16, 3-18, 3-19 and 3-20) recommended a maximum inflation to no more than 40 psi to seat the bead (force the tire bead against the rim flange), one commenter (Ex. 3-11) pointed out that some tires used in specialized applications require different bead seating pressures. OSHA recognizes such situations and, therefore, the final rule requires infla-

tion to no more than the tire or wheel manufacturer's recommendation for seating the bead of the rim wheel being serviced.

In paragraph (g)(11), OSHA proposed to prohibit the use of heat except to free bound lug nuts. As noted in the discussion of paragraph (f)(11) above, OSHA is prohibiting the use of heat on a rim wheel for any purpose.

The proposed paragraph (g)(12) prohibited the use of heat to repair unserviceable wheels and referred to heating of lug nuts. Based on the rationale used to support the decision on paragraphs (f)(11) and (g)(11) above, OSHA maintains its prohibition on the use of heat on all wheels.

Two commenters (Ex. 3-6 and 3-23) recommended the inclusion of a new appendix giving examples of acceptable restraining devices and barriers. The choice of the type of restraint, the materials from which it is constructed and how it will be used are based upon factors such as: the type of rim wheels to be serviced (the size and type of components); the frequency of use of the restaint; and the environmental conditions under which the restraint will be used and stored. Based upon the number of variables which must be considered in designing and making a restraining device or barrier, OSHA has decided that an Appendix containing specifications, diagrams or descriptions of restraining devices might appear to give an endorsement to particular types or designs of devices. In addition, such an Appendix might appear to restrict innovation in development of future designs. It should be noted, however, that pictures of various restraining devices in use are shown on the charts and in the rim manuals, either of which is required to be available at the worksite.

3. Regulatory Impact Assessment

In accordance with Executive Order No. 12291 (46 FR 13193, February 17, 1981), OSHA has assessed the potential

economic impact of this standard. Based on the Executive Order criteria, OSHA has determined that this amendment is not a "major" action and OSHA has prepared a Regulatory Impact Assessment of the amendment.

OSHA's determination that the amendment will not have a major impact is based primarily upon three studies. The first study is a June 1973 report by Centaur Management Consultants, Inc., for OSHA entitled "Economic Impact Statement/Assessment for Multi-piece Rim Assemblies" (Docket S-005, Ex. 2-33). The second study is a March 1981 report by Dr. Roger L. McCarthy and Mr. James R. Finnegan of Failure Analysis Associates for the National Wheel and Rim Association (NWRA) entitled, "Large Vehicle Wheel Servicing: Reduction of Risk Through Implementation of an OSHA Standard Governing Multi-Piece and Single Piece Rims" (Docket S-010, Ex. 3). The third study is a March 1981 report by Dr. Thomas Gale Moore of the Hoover Institute for the NWRA entitled "An Economic Evaluation of Proposed OSHA Single Piece Rim Standard" (Docket S-010, Ex. 4).

Most, if not all facilities which will service single piece rim wheels currently service multi-piece rim wheels. As a result, OSHA concludes that the promulgation of a single piece rim wheel servicing standard will result in no additional capital costs because the equipment which must currently be provided for compliance with the multi-piece rim wheel servicing standard will also meet the equipment requirements for single piece rim wheel servicing.

OSHA estimates that the total number of large vehicle rim wheels to be serviced will generally be constant over the next ten years. OSHA expects that the number of single piece rim wheels serviced will increase as the number of multi-piece rim wheels serviced decreases. As a result, equipment currently used to service multi-piece rim wheels will be shifted to servicing single piece rim wheels and no

additional equipment will need to be purchased in order to comply with the single piece rim wheel servicing standard.

However, there will be initial and continuing training costs imposed by the employee training requirements of the standard. These costs, in 1981 dollars, are estimated to be, at most, $2.515 million in the first year and about $0.908 million (growing at a yearly rate of 1.6%) in each succeeding year. This maximum cost is calculated under the assumption that all employees (including supervisors) will require training at overtime wages during the first year that the standard is effective. The estimate also assumes a 50 pecent turnover rate for nonsupervisory employees, and a 33 percent turnover rate for supervisors in subsequent years. As a result, it is assumed that employers will be required to train a new nonsupervisory employee every year and a supervisor every two years. Assuming 15 minutes of additional training, the present value (discounted to 1981 by 10%) of this training cost is estimated at $8.3 million over the 1981 to 1990 period. As noted above, OSHA believes that this is an upper bound estimate of the training cost involved.

In addition, the standard will have some negative effects on productivity because it will require that tires on single piece wheels be inflated at a distance from the employee. This cost is estimated to be, at most, $750,000 in 1981 dollars increasing to $2.05 million in 1990. The productivity impacts are estimated on the high cost assumptions that no employees currently follow this safe servicing procedure, and that there are no positive productivity offsets, such as fewer days lost from work. Over the 10-year period 1981 to 1990, the present value (discounted to 1981 by 10%) of this "worst case" cost estimate is $8.35 million in 1981 dollars.

This makes the present value of the total costs, assuming the 10% discount rate over the 10-year period 1981-1990, approximately $16.47 million in 1981 dollars. This amounts to approximately $16 per facility per year.

OSHA has also examined the likely effects which the amendment will have on the prices charged for servicing large vehicle tires, employment, critical materials, and market structure. The rate at which employers change from multi-piece rims and tube-type tires to the more fuel-efficient single piece rims and radial truck tires will not be affected. No significant impacts on any of those areas are expected to result from compliance with the standard.

The population at risk is approximately 322,000 persons who are employed in 102,000 workplaces in ten industry sectors. As discussed earlier in the section entitled "Significant Risk", these workers will benefit from a safer workplace as a result of the standard.

The major benefit of compliance with this standard is a significant reduction in the number of fatalities and total and permanent disabilities, which are the result of accidents which occur during the servicing of single piece rim wheels. As previously noted, at least 91 injury-causing accidents involving the servicing of single piece rim wheels occurred between 1970 and 1980. The current injury rate in single piece rim wheel servicing of one in every million tire changes is about the same as the injury rate which existed in multi-piece rim wheel servicing before the promulgation of the OSHA standard governing the servicing of multi-piece rim wheels.

The percentage of vehicles which utilize single piece rim wheels is expected to increase from 20 percent in 1980 to about 50 percent in 1990. This increase is largely due to greater fuel efficiency of radial tires which require, for the most part, the use of single piece wheels. Assuming this increased use, if the current accident rate does not change and if no standard is promulgated, OSHA estimates that there will be approximately 280 to 350 accidents; 50 to 67 fatalities; 50 to 67 total disabilities; 50 to 67 permanent disabilities; and 137 to 188 temporary disabilities over the 10-year period of 1981 to 1990.

OSHA's analysis of the available accident data indicates that the provisions of this standard, if followed, would have prevented nearly all of the reported accidents. In addition, OSHA has concluded that compliance with this standard will involve minimal costs to employers and that the promulgation of the standard will result in high levels of compliance. Accordingly, a corresponding large reduction in the number of deaths and injuries should follow. For purposes of the analysis, OSHA has assumed a 75 percent reduction.

It should be noted that OSHA does not endorse any particular estimate of the value of employee lives, and has not used such an estimate in determining the content and application of the final rule. However, the following discussion and calculations of the economic costs of rim wheel accidents may be illustrative of the potential benefits of OSHA's standard.

One measure of the potential benefits of the standard is the dollar amount that society would be "willing to pay" to prevent these accidents. Depending upon the methodology used, OSHA estimated that this willingness-to-pay estimate would be between $40.70 million and $72.05 million.

As another method of estimating the potential benefits of the amendment, OSHA examined the estimated lifetime earnings loss due to death or injury, the costs of long-term care for the totally disabled, and the medical costs of treating the injuries. Using the available injury data, OSHA estimated the present value in 1981 of the preventable economic losses to workers for the 10-year period 1981 to 1990 to be between $21.71 and $31.72 million. These are low cost values because the estimate of forgone wages was based upon the assumption that the injured workers would have remained repairmen and would not have advanced to higher income jobs. The estimated monetary benefits of the standard also do not include followup treatment for permanent or temporary disabilities. They also do not include intangible benefits

like the social value of the worker's life, or the value of the prevented pain and suffering. In addition, they do not include any potential secondary benefits from the reduction of on-the-road truck accidents caused by rim wheel failures due to improper servicing of single piece rim wheels.

On this basis, OSHA concludes that this standard will reduce the number of worker deaths and disabilities, will provide net benefits to society, and will not adversely affect any sector of the economy.

4. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act of 1980 (Pub. L. 96-353, 94 Stat. 1164 (5 U.S.C. 601 et seq.)), OSHA has assessed the potential economic impact of this standard on small entities and has examined some of the alternatives to it. Based on this assessment, OSHA hereby certifies that the standard will not have a significant economic effect on a substantial number of small entities. For purposes of the Regulatory Flexibility Certification, OSHA defines a small tire servicing entity as one which employs fewer than 20 people.

The Centaur study (Docket S-005, Ex. 2) indicates that nearly all of the garages and service stations which service large vehicle tires for the general public are included in this definition of small business, and that this proposal may affect as many as 100,000 small firms. However, even using the "worst case" basis for estimating the cost of compliance, the promulgation of this standard will cost the typical small garage (one supervisor and two employees) about $32.50 the first year and between $13 and $16 per year each succeeding year. The sources of these costs are the required employee training and the increase in tire servicing time. There are some very small economies of scale in training. However, the fact that firms must train new employees as they are hired largely precludes training many employees at

the same time. This is especially true in this industry which is characterized by high labor turnover. Consequently, large employers will not garner any significant economies of scale in training and these costs will be largely proportional to the number of employees trained. Similarly, the increased time needed to service each rim wheel is independent of the number of rim wheels serviced. As the smaller firm would service fewer rim wheels, OSHA believes that the minimal cost of compliance will not significantly affect small entities and will not create any competitive disadvantages for small entities. Copies of the Regulatory Impact Assessment and Regulatory Flexibility Analysis are available for inspection and copying at the OSHA Docket Office, Docket No. S-010, Room S-6212, U.S. Department of Labor, Washington, D.C. 20210. (202) 523-7894.

5. State Plan Applicability

The 24 States with their own OSHA-approved occupational safety and health plans must adopt a comparable standard within six months of this publication date. These States are: Alaska, Arizona, California, Connecticut (for state and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming. Until such time as a State standard is promulgated, Federal OSHA will provide interim enforcement assistance, as appropriate, in these States.

6. Effective Date

Based on the information in the Regulatory Impact Assessment, and in the Regulatory Flexibility Certificate, it is anticipated that the affected employers will have difficulty in complying with the provisions of this standard. There is

no need for an extended delay for employers to implement the provisions of the standard. Therefore, the effective date of this standard is March 5, 1984.

The standard currently found in § 1910.177 will remain in effect until the standard contained in this document is effective.

List of Subjects in 29 CFR Part 1910

Protective equipment, Safety, Signs and Symbols.

Authority: This Document was prepared under the direction of Thorne G. Auchter, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, Third Street and Constitution Avenue, N.W., Washington, D.C. 20210.

Accordingly, pursuant to section 6(b) of the Occupational Safety and Health Act of 1970 (84 Stat. 1593; 29 U.S.C. 655), Secretary of Labor's Order No. 9-83 (48 FR 35736), and 29 CFR Part 1911, § 1910.177 of 29 CFR is amended as set forth below.

Signed at Washington, D.C., this 30th day of January 1984.

Thorne G. Auchter,
Assistant Secretary of Labor.

PART 1910—[AMENDED]

Section 1910.177 is amended by revising the title to read, "Servicing multi-piece and single piece rim wheels," by revising paragraphs (a), (b), (c)(1), (c)(1)(i), (c)(1)(ii), (c)(2), (c)(2)(ii), (c)(2)(iii), (c)(2)(iv), (c)(2)(v), (c)(2)(vii), (c)(3), (d)(2), (d)(3), (d)(4), (d)(5), (e), introductory text of (f), (f)(2), (f)(3), and (f)(4), and by adding new paragraphs (c)(2)(iii), (d)(6), (f)(11) and (g). As amended, §1910.177 reads as follows:

§ 1910.177 Servicing multi-piece and single piece rim wheels.

(a) *Scope.* (1) This section applies to the servicing of multi-piece and single piece rim wheels used on large vehicles such as trucks, tractors, trailers, buses and off-road machines. It does not apply to the servicing of rim wheels used on automobiles, or on pickup trucks and vans utilizing automobile tires or truck tires designated "LT".

(2) This section does not apply to employers and places of employment regulated under the Construction Safety Standards, 29 CFR Part 1926; the Agriculture Standards, 29 CFR Part 1928; or the Maritime Standards, 29 CFR 1915-1918.

(3) All provisions of this section apply to the servicing of both single piece rim wheels and multi-piece rim wheels unless designated otherwise.

(b) *Definitions.* "Barrier" means a fence, wall or other structure or object placed between a single piece rim wheel and an employee during tire inflation, to contain the rim wheel components in the event of the sudden release of the contained air of the single piece rim wheel.

"Charts" means the United States Departmnent of Transportation, National Highway Traffic Safety Administration (NHTSA) publications entitled "Safety Precautions for Mounting and Demounting Tube-Type Truck/Bus Tires" and "Multi-Piece Rim Wheel Matching Chart," or any other publications such as rim manuals containing, at a minimum, the same instructions, safety precautions and other information contained on those charts that are applicable to the types of rim wheels being serviced.

"Installing a rim wheel" means the transfer and attachment of an assembled rim wheel onto a vehicle axle hub. "Removing" means the opposite of installing.

"Mounting a tire" means the assembly or putting together of the wheel and tire components to form a rim

wheel, including inflation. "Demounting" means the opposite of mounting.

"Multi-piece rim wheel" means the assemblage of a multi-piece wheel with the tire tube and other components.

"Multi-piece wheel" means a vehicle wheel consisting of two or more parts, one of which is a side or locking ring designed to hold the tire on the wheel by interlocking components when the tire is inflated.

"Restraining device" means an apparatus such as a cage, rack, assemblage of bars and other components that will constrain all rim wheel components during an explosive separation of a multi-piece rim wheel, or during the sudden release of the contained air of a single piece rim wheel.

"Rim manual' means a publication containing instructions from the manufacturer or other qualified organization for correct mounting, demounting, maintenance, and safety precautions peculiar to the type of wheel being serviced.

"Rim wheel" means an assemblage of tire, tube and liner (where appropriate), and wheel components.

"Service" or "servicing" means the mounting and demounting of rim wheels, and related activities such as inflating, deflating, installing, removing, and handling.

"Service area" means that part of an employer's premises used for the servicing of rim wheels, or any other place where an employee services rim wheels.

"Single piece rim wheel" means the assemblage of single piece rim wheel with the tire and other components.

"Single piece wheel" means a vehicle wheel consisting of one part, designed to hold the tire on the wheel when the tire is inflated.

"Trajectory" means any potential path or route that a rim wheel component may travel during an explosive separation, or the sudden release of the pressurized air, or an area at which an airblast from a single piece rim wheel may be released. The trajectory may deviate from paths which

are perpendicular to the assembled position of the rim wheel at the time of separation or explosion. (See Appendix A for examples of trajectories.)

"Wheel" means that portion of a rim wheel which provides the method of attachment of the assembly to the axle of a vehicle and also provides the means to contain the inflated portion of the assembly (i.e., the tire and/or tube).

(c) *Employee training.* (1) The employer shall provide a program to train all employees who service rim wheels in the hazards involved in servicing those rim wheels and the safety procedures to be followed.

(i) The employer shall assure that no employee services any rim wheel unless the employee has been trained and instructed in correct procedures of servicing the type of wheel being serviced, and in the safe operating procedures described in paragraphs (f) and (g) of this section.

(ii) Information to be used in the training program shall include, at a minimum, the applicable data contained in the charts (rim manuals) and the contents of this standard.

(iii) Where an employer knows or has reason to believe that any of his employees is unable to read and understand the charts or rim manual, the employer shall assure that the employee is instructed concerning the contents of the charts and rim manual in a manner which the employee is able to understand.

(2) The employer shall assure that each employee demonstrates and maintains the ability to service rim wheels safely, including performance of the following tasks:

(i) Demounting of tires (including deflation);

(ii) Inspection and identification of the rim wheel components;

(iii) Mounting of tires (including inflation with a restraining device or other safeguard required by this section);

(iv) Use of the restraining device or barrier, and other equipment required by this section;

(v) Handling of rim wheels;

(vi) Inflation of the tire when a single piece rim wheel is mounted on a vehicle;

(vii) An understanding of the necessity of standing outside the trajectory both during inflation of the tire and during inspection of the rim wheel following inflation; and

(viii) Installation and removal of rim wheels.

(3) The employer shall evaluate each employee's ability to perform these tasks and to service rim wheels safely, and shall provide additional training as necessary to assure that each employee maintains his or her proficiency.

(d) *Tire servicing equipment.* (1) The employer shall furnish a restraining device for inflating tires on multi-piece wheels.

(2) The employer shall provide a restraining device or barrier for inflating tires on single piece wheels unless the rim wheel will be bolted onto a vehicle during inflation.

(3) Restraining devices and barriers shall comply with the following requirements:

(i) Each restraining device or barrier shall have the capacity to withstand the maximum force that would be transferred to it during a rim wheel separation occurring at 150 percent of the maximum tire specification pressure for the type of rim wheel being serviced.

(ii) Restraining devices and barriers shall be capable of preventing the rim wheel components from being thrown outside or beyond the device or barrier for any rim wheel positioned within or behind the device;

(iii) Restraining devices and barriers shall be visually inspected prior to each day's use and after any separation of the rim wheel components or sudden release of contained air. Any restraining device or barrier exhibiting damage such

as the following defects shall be immediately removed from service:

(A) Cracks at welds;

(B) Cracked or broken components;

(C) Bent or sprung components caused by mishandling, abuse, tire explosion or rim wheel separation;

(D) Pitting of components due to corrosion; or

(E) Other structural damage which would decrease its effectiveness.

(iv) Restraining devices or barriers removed from service shall not be returned to service until they are repaired and reinspected. Restraining devices or barriers requiring structural repair such as component replacement or rewelding shall not be returned to service until they are certified by either the manufacturer or a Registered Professional Engineer as meeting the strength requirements of paragraph (d)(3)(i) of this section.

(4) The employer shall furnish and assure that an air line assembly consisting of the following components be used for inflating tires:

(i) A clip-on chuck;

(ii) An in-line valve with a pressure gauge or a presettable regulator; and

(iii) A sufficient length of hose between the clip-on chuck and the in-line valve (if one is used) to allow the employee to stand outside the trajectory.

(5) Current charts (rim manuals) containing instructions for the types of wheels being serviced shall be available in the service area.

(6) The employer shall furnish and assure that only tools recommended in the rim manual for the type of wheel being serviced are used to service rim wheels.

(e) *Wheel component acceptability.* (1) Multi-piece wheel components shall not be interchanged except as provided in the charts or in the applicable rim manual.

(2) Multi-piece wheel components and single piece wheels shall be inspected prior to assembly. Any wheel or wheel component which is bent out of shape, pitted from corrosion, broken, or cracked shall not be used and shall be marked or tagged unserviceable and removed from the service area. Damaged or leaky valves shall be replaced.

(3) Rim flanges, rim gutters, rings, bead seating surfaces and the bead areas of tires shall be free of any dirt, surface rust, scale or loose or flaked rubber build-up prior to mounting and inflation.

(4) The size (bead diameter and tire/wheel widths) and type of both the tire and the wheel shall be checked for compatibility prior to assembly of the rim wheel.

(f) *Safe operating procedure—multi-piece rim wheels.* The employer shall establish a safe operating procedure for servicing multi-piece rim wheels and shall assure that employees are instructed in and follow that procedure. The procedure shall include at least the following elements:

(1) Tires shall be completely deflated before demounting by removal of the valve core.

(2) Tires shall be completely deflated by removing the valve core before a rim wheel is removed from the axle in either of the following situations:

(i) When the tire has been driven underinflated at 80% or less of its recommended pressure, or

(ii) When there is obvious or suspected damage to the tire or wheel components.

(3) Rubber lubricant shall be applied to bead and rim mating surfaces during assembly of the wheel and inflation of the tire, unless the tire or wheel manufacturer recommends against it.

(4) If a tire on a vehicle is underinflated but has more than 80% of the recommended pressure, the tire may be inflated while the rim wheel is on the vehicle provided

remote control inflation equipment is used, and no employees remain in the trajectory during inflation.

(5) Tires shall be inflated outside a restraining device only to a pressure sufficient to force the tire bead onto the rim ledge and create an airtight seal with the tire and bead.

(6) Whenever a rim wheel is in a restraining device the employee shall not rest or lean any part of his body or equipment on or against the restraining device.

(7) After tire inflation, the tire and wheel components shall be inspected while still within the restraining device to make sure that they are properly seated and locked. If further adjustment to the tire or wheel components is necessary, the tire shall be deflated by removal of the valve core before the adjustment is made.

(8) No attempt shall be made to correct the seating of side and lock rings by hammering, striking or forcing the components while the tire is pressurized.

(9) Cracked, broken, bent or otherwise damaged rim components shall not be reworked, welded, brazed, or otherwise heated.

(10) Whenever multi-piece rim wheels are being handled, employees shall stay out of the trajectory unless the employer can demonstrate that performance of the servicing makes the employee's presence in the trajectory necessary.

(11) No heat shall be applied to a multi-piece wheel or wheel component.

(g) *Safe operating procedure—single piece rim wheels.* The employer shall establish a safe operating procedure for servicing single piece rim wheels and shall assure that employees are instructed in and follow that procedure. The procedure shall include at least the following elements:

(1) Tires shall be completely deflated by removal of the valve core before demounting.

(2) Mounting and demounting of the tire shall be done only from the narrow ledge side of the wheel. Care shall be

taken to avoid damaging the tire beads while mounting tires on wheels. Tires shall be mounted only on compatible wheels of matching bead diameter and width.

(3) Nonflammable rubber lubricant shall be applied to bead and wheel mating surfaces before assembly of the rim wheel, unless the tire or wheel manufacturer recommends against the use of any rubber lubricant.

(4) If a tire changing machine is used, the tire shall be inflated only to the minimum pressure necessary to force the tire bead onto the rim ledge while on the tire changing machine.

(5) If a bead expander is used, it shall be removed before the valve core is installed and as soon as the rim wheel becomes airtight (the tire bead slips onto the bead seat).

(6) Tires may be inflated only when contained within a restraining device, positioned behind a barrier or bolted on the vehicle with the lug nuts fully tightened.

(7) Tires shall not be inflated when any flat, solid surface is in the trajectory and within one foot of the sidewall.

(8) Employees shall stay out of the trajectory when inflating a tire.

(9) Tires shall not be inflated to more than the inflation pressure stamped in the sidewall unless a higher pressure is recommended by the manufacturer.

(10) Tires shall not be inflated above the maximum pressure recommended by the manufcturer to seat the tire bead firmly against the rim flange.

(11) No heat shall be applied to a single piece wheel.

(12) Cracked, broken, bent, or otherwise damaged wheels shall not be reworked, welded, brazed, or otherwise heated.

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

Appendix G
Federal Register—Rules and Regulations
(February 3, 1984)

Appendix B—Ordering Information for NHTSA Charts

OHSA has reprinted the NSTSA Charts as part of a continuing campaign to alert rim wheel servicing personnel of the industry accepted procedures for servicing multi-piece rim wheels.

Reprints of the charts are available through the Occupational Safety and Health Administration (OHSA) Area Offices. The address and telephone number of the nearest OSHA Area Office can be obtained by looking in the local telephone directory under U.S. Government, U.S. Department of Labor, Occupational Safety and Health Administration. Single copies are available without charge.

Individuals, establishments and other organizations desiring multiple copies of these charts may order them from the Publications Office, U.S. Department of Labor, Room N4101, Washington, D.C. 20210. Telephone: (202) 523-9667.

[FR Doc. 84-2884 Filed 2-2-84; 8:45 am]

BILLING CODE 4510-26-M

APPENDIX H

ORDER

AT A SESSION OF THE COURT OF APPEALS OF THE STATE OF MICHIGAN, Held at the Court of Appeals in the City of Detroit, on the 29th day of November in the year of our Lord one thousand nine hundred and eighty-four.

Present the Honorable
ROMAN S. GRIBBS
Presiding Judge
HAROLD HOOD
RICHARD M. MAHER
Judges

THELMA COUSINEAU, Personal Representative of the Estate of MARK COUSINEAU,
Plaintiff-Appellant,

v

Docket No. 69363

FORD MOTOR COMPANY, a foreign corporation; INTERNATIONAL HARVESTER COMPANY, a foreign corporation; GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation; KELSEY HAYES CORPORATION, a foreign corporation; BUDD CORPORATION, a foreign corporation; FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation; FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,
Defendants-Appellees.

Appendix H
Order

In this cause, four applications for rehearing are filed by appellees, and answers thereto having been filed, and due consideration thereof having been had by the Court,

IT IS ORDERED that the applications for rehearing be, and the same hereby are DENIED.

STATE OF MICHIGAN -- ss.

I, Ronald L. Dzierbicki, Clerk of the Court of Appeals of the State of Michigan, do hereby certify that the foregoing is a true and correct copy of an order entered in said court in said cause; that I have compared the same with the original, and that it is a true transcript therefrom, and the whole of said original order.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Court of Appeals at Lansing, this 4th day of December in the year of our Lord one thousand nine hundred and eighty-four.

(s) Ronald L. Dzierbicki
Chief Clerk

APPENDIX I

ORDER

AT A SESSION OF THE COURT OF APPEALS OF THE STATE OF MICHIGAN, Held at the Court of Appeals in the City of Detorit, on the 26th day of December in the year of our Lord one thousand nine hundred and eighty-four.

Present the Honorable
ROMAN S. GRIBBS
Presiding Judge
HAROLD HOOD
RICHARD M. MAHER
Judges

THELMA COUSINEAU, Personal Representative of the Estate of MARK COUSINEAU,
Plaintiff-Appellant,

v *Docket No. 69363*

FORD MOTOR COMPANY, a foreign corporation; INTERNATIONAL HARVESTER COMPANY, a foreign corporation; GOODYEAR TIRE & RUBBER COMPANY, a foreign corporation; KELSEY HAYES CORPORATION, a foreign corporation; BUDD CORPORATION, a foreign corporation; FIRESTONE TIRE & RUBBER COMPANY, a foreign corporation; FRUEHAUF CORPORATION, a foreign corporation, and AMF, INC., a foreign corporation,
Defendants-Appellees.

This Court having received requests and objections for the publication of its per curiam opinion released August 9, 1984, and further considerations thereof having been had by the Court, Therefore,

IT IS ORDERED upon the Court's own motion that the requests for publication be GRANTED.

IT IS FURTHER ORDERED that the opinion be corrected for publication as a published authored opinion by Judge Roman S. Gribbs, a copy of which is attached hereto. The result of the opinion shall remain the same.

STATE OF MICHIGAN -- ss.

I, Ronald L. Dzierbicki, Clerk of the Court of Appeals of the State of Michigan, do hereby certify that the foregoing is a true and correct copy of an order entered in said court in said cause; that I have compared the same with the original, and that it is a true transcript therefrom, and the whole of said original order.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Court of Appeals at Lansing, this 2nd day of January in the year of our Lord one thousand nine hundred and eighty-five.

(s) Ronald L. Dzierbicki
Chief Clerk